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MARYLAND YELLOW-THROAT

Order—PASSERES

Family—CEREBIDÆ

Genus—GEOTHLYPIS

Species—TRICHAS TRICHAS

National Association of Audubon Societies

Bird-Lore

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Courtenay Brandreth's Bird Paintings

By FRANK M. CHAPMAN¹

THE form of a bird at rest is so definite, its lines so simple and continuous, that one might imagine they could be reproduced by anyone with even slight talent for drawing. Nevertheless, good bird artists are rare. Possibly the very simplicity of the bird's outline makes it a difficult subject, for although each species possesses its own characteristics of form, pose, and expression, which to the bird student are pronounced and obvious, they are not evident to the artist who has not sufficient interest in bird-life to study his subject sympathetically. How many otherwise excellent paintings are marred by the introduction of the figures of birds as anatomically incorrect as would be a human figure drawn with arms, let us say, attached to the hips instead of to the shoulders! No artist would attempt to draw a man without having previously studied the original; why, therefore, should he hope for success in bird portraiture when he relies on his imagination rather than on nature for a model?

It requires, however, something more than study from life to produce a wholly adequate bird picture, just as it requires something in addition to good draftsmanship to paint the portrait of a human subject. Where, on the one hand, there is needed that sympathetic insight into human nature which permits of character interpretation, so, on the other, there is need for that love of birds which sees not merely a feathered form but a creature marvelously endowed with its own special traits, disposition, and potentialities, which are evident only to one who is familiar with what we call the *habits* of his subject. It is clear, for example, that one should not depict a Dove with the expression of a Hawk, but only the bird student knows the difference in expression, physiognomy, and attitude between a Warbler and a Vireo. Without going further it may be said, in a word, that no one has ever reached or ever will reach the first rank of bird artists who is not possessed of that keen interest in birds which marks the born ornithologist.

This sharp, vibrating response to the sight of a bird or the sound of its voice is a heritage as rare as it is priceless, and when in the fortunate individual

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possessing it we find also the talents of an artist, we have that exceptional combination of gifts which makes the true bird artist. The world has known but few men and no women of this type, and those who are interested watch eagerly for the exhibition of gifts which mark their possessor as a man of promise in the field of bird art.

During November, 1920, there was held at the Congressional Library in Washington an exhibit of bird paintings at which twenty-four artists were represented. Among the pictures shown were several by Mr. Courtenay Brandreth, of Ossining, New York. Mr. Brandreth's name is new among bird artists, but his pictures aroused such favorable comment that he was subsequently invited to exhibit his work in the American Museum. About twenty-



PORTRAIT OF A LEAST SANDPIPER

Ideal treatment of bird drawing for purposes of scientific illustration

five of his paintings were therefore shown in the forestry hall of the museum in December, 1920, several of which are herewith reproduced.

Black-and-white reproduction unfortunately gives no indication of Mr. Brandreth's skill as a colorist, but does do justice to his draftsmanship, to the excellence of which the most exacting technical ornithologist would bear witness. Mr. Brandreth's success in portraying form, pose, and expression is due to his natural gifts, to genuine love of birds which sends him to nature for his subjects, and to a course of study under Louis Agassiz Fuertes, master painter of bird portraits.

Not only are his birds correct in form, but also in feather. To the landscapist who introduces an alleged Eagle or Gull into his painting for purely artistic purposes it is quite immaterial whether his figure has five or ten primaries; nevertheless, the same man would not think of giving a human subject an incorrect number of fingers, and to the ornithologist it is quite as important to give a bird its proper number of wing quills.



LOON ON AN ADIRONDACK LAKE, CALLING AND RUNNING OVER THE WATER IN A
COURTSHIP EVOLUTION



TREE SWALLOW PLAYING WITH A FEATHER

Note the detail with which the feathers of the wing are drawn

Mr. Brandreth has certainly not detracted from the beauty of his figures of birds by giving them their due allotment of feathers; he has thereby greatly increased their charm to the bird student who is as much pained by a picture of a five-primaried Swallow as he would be by that of a two-fingered man.

But Mr. Brandreth is something more than a gifted and accurate drawer of birds. Among artists of his class his pictures show that he has already attained an unusual measure of success in placing his bird in the landscape, or perhaps I should say in placing landscape about his bird.

The purposes of scientific illustration to aid in the identification of the



FEMALE EVENING GROSBEAK
An excellent example of bird portraiture

species drawn are best served by the elimination or suppression of all unnecessary accessories. Given a branch on which to perch, or a stick to stand upon, and all other suggestion of out-of-doors may be omitted. The accompanying Evening Grosbeak and Least Sandpiper pictures are good illustrations of this kind of bird drawing. But it is one of the most promising features of Mr. Brandreth's art that he is not content to rest here. In several of the paintings in his exhibition he has aimed to portray not merely the bird on the bough, but the bird in its haunts, a kind of bird painting in which it is evident success can be won only by an artist who is a good landscapist as well as a good bird portrait painter.

The painting of the Loon, here inadequately reproduced in black and white, gives some conception of the character of Mr. Brandreth's work in this higher branch of ornithological art. The Loon, a male, is shown in one of its courtship evolutions when, calling loudly, it seems to half run, half jump over the water about the female. The bird's excitement at this season is increased by an approaching storm, and its calls echoing over the water voice the spirit of the wilderness. No one who has been thrilled by the Loon's weird cries can fail to have the experience recalled by Mr. Brandreth's painting,—an indication, therefore, that the artist has at least approached the mark toward which he was aiming.

Other subjects give additional proof that if Mr. Brandreth continues to follow the path in which he has made so promising a start, he will win a place among the few men who can claim to be both painters of birds and of nature.



EVENING GROSBEAKS

Photographed by L. F. Brehmer, at Rutland, Vt., March 1917

Bird-Lore's Advisory Council

WITH some slight alterations, we reprint below the names and addresses of the ornithologists forming BIRD-LORE's 'Advisory Council.'

To those of our readers who are not familiar with the objects of the Council, we may state that it was formed for the purpose of placing students in direct communication with an authority on the bird-life of the region in which they live, to whom they might appeal for information and advice in the many difficulties which beset the isolated worker.

The success of the plan during the twenty-two years that it has been in operation fully equals our expectations. From both students and members of the Council we have had very gratifying assurances of the happy results attending our efforts to bring the specialist in touch with those who appreciate the opportunity to avail themselves of his wider experience.

It is requested that all letters of inquiry to members of the Council be accompanied by a stamped and addressed envelope for use in replying.

NAMES AND ADDRESSES OF MEMBERS OF THE ADVISORY COUNCIL

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CALIFORNIA.—Walter K. Fisher, Palo Alto, Calif.
COLORADO.—Dr. W. H. Bergtold, 1159 Race St., Denver, Colo.
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LOUISIANA.—H. H. Kopman, Conservation Commission, New Orleans, La.
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 TEXAS.—H. P. Attwater, Houston, Texas.
 UTAH.—Prof. Marcus E. Jones, Salt Lake City, Utah.
 VERMONT.—Prof. G. H. Perkins, Burlington, Vt.
 VIRGINIA.—Dr. W. C. Rives, 1702 Rhode Island Avenue, Washington, D. C.
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 WEST VIRGINIA.—Dr. W. C. Rives, 1702 Rhode Island Avenue, Washington, D. C.
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MEXICO

E. W. Nelson, Biological Survey, Dept. of Agr., Washington, D. C.

GREAT BRITAIN

Clinton G. Abbott, 4290 Sierra Vista, San Diego, Calif.
 Frank M. Chapman, Am. Mus. Nat. Hist., New York City.

Bird-Lore's Twenty-second Christmas Census

THE highest number of species recorded in this census, in the northern and middle Atlantic States, is 37 at Elizabeth, N. J.; comparable, in the northern Mississippi Valley, with 34 at Buckeye Lake, Ohio, (or a combined total of 43 of the Wheaton Club, Columbus, Ohio). Kentucky has 39, Alabama 40, and Oklahoma 38. In the South, 109 at East Goose Creek, Fla., is a larger list than 88 from Santa Barbara, which is the highest for the Pacific coast. It would seem, then, that Florida can successfully rival California in variety of winter birds.

Last year, there were 118 published census reports from the New England and Middle Atlantic States, and Middle Western States north of the Ohio and east of the Mississippi Rivers. Therein the Northern Shrike was recorded ten times, a total of 13 individuals. Except for 1 in Illinois, all (that is 12 individuals) were in the 61 reports from New York and New England. In the corresponding 113 census reports for the present year the Northern Shrike is recorded 37 times, a total of 52 individuals, with a maximum of 3 individuals to any one report (occurring twice). There are 33 individuals in the 57 reports from New York and New England, but none in 8 reports from Maine, New Hampshire, and Vermont, as against 3 (of the total 13) in 7 reports from those states last year. For the rest, 15 individuals are reported from New Jersey and Pennsylvania, 2 in Wisconsin, and 2 in Ohio.

Arnprior, Ont.—Dec. 25; 9.30 A.M. to 5 P.M. Fine; 3 in. snow; wind west, light; temp 10° below zero at start, 3° above at return. Twenty miles on foot. Observers separate. Canada Ruffed Grouse, 28; Hairy Woodpecker, 2; Downy Woodpecker, 3; Canada Jay, 1; Evening Grosbeak, 32; Pine Grosbeak, 13; Redpoll, 36; Snow Bunting (heard); White-breasted Nuthatch, 2; Red-breasted Nuthatch, 3; Black-capped Chickadee, 33; Hudsonian Chickadee, 2. Total, 12 species, 155 individuals (plus Snow Buntings). One observer traveled the Nopiming Crown Game Reserve, a small wild-life sanctuary established near Arnprior, which accounts for the unusual number of Ruffed Grouse.—LIGUORI GORMLEY and CHAS. MACNAMARA.

Bowmanville, Ont. (to Hampton and the Lake Ontario shore).—Dec. 23; 8.45 A.M. to 4.15 P.M. Cloudy; 1 inch of snow; wind southeast, very light; temp. 30° to 36°. Total distance covered, fourteen miles on foot. Observers separate. Great Black-backed Gull, 2; Herring Gull, 7; Ring-billed Gull, 10; American Merganser, 24; Virginia Rail (?), 1; Ruffed Grouse, 2; Hairy Woodpecker, 1; Downy Woodpecker, 5; Flicker, 2; Blue Jay, 10; Bronzed Grackle, 1; Tree Sparrow, 30; Junco, 6; Brown Creeper, 1; White-breasted Nuthatch, 5; Chickadee, 15. Total, 16 species, about 122 individuals. Others seen recently—Sparrow Hawk, Golden-crowned Kinglet. The Bronzed Grackle was observed very closely by Miss Raynes. They have been here all autumn. The Great Black-backed Gull was observed at about 100 yards with field-glasses by Mr. Gould. The Gull-like characteristics, together with jet-black mantle and large size, made identification positive. The Virginia Rail (?) was glimpsed by Mr. Allen. The identification was not positive, but it was some such marsh bird.—MARGARET RAYNES, M. G. GOULD and A. ALLEN.

Coldstream, Ont.—Dec. 24. Sky overcast; ground covered with snow; wind light, northeast. Ruffed Grouse, 1; Sharp-shinned Hawk, 1; Red-tailed Hawk, 1; Long-eared Owl, 1; Screech Owl, 1; Great Horned Owl, 1; Hairy Woodpecker, 1; Downy Woodpecker, 1; Blue Jay, 1; Tree Sparrow, 15; Song Sparrow, 1; White-breasted Nuthatch, 4; Black-capped

Chickadee, 4. Total, 13 species, 33 individuals. Also seen recently Flicker, Red-bellied Woodpecker, Pine Siskin.—A. A. WOOD.

Duncrief, Ont.—Dec. 26. Bright in the early morning, clouding up later; ground covered with snow; wind light, south to southwest. Red-legged Black Duck, 1; Short-eared Owl, 1; Screech Owl, 1; Great Horned Owl, 1; Hairy Woodpecker, 1; Downy Woodpecker, 2; Prairie Horned Lark, 1; Crow, 1; Snow Bunting, 175; White-breasted Nuthatch, 2; Black-capped Chickadee, 2; Robin, 1. Total, 12 species, 189 individuals. Great Blue Heron, Red-bellied Woodpecker, Bronzed Grackle, Dec. 20; Arctic Three-toed Woodpecker, Dec. 16.—ROGER HEDLEY.

Hamilton, Ont.—Dec. 23; 8 A.M. to 12 M. Sky overcast; snow flurries; temp. 30° at start, 34° at return. Eight miles on foot. Observers together. Canadian Ruffed Grouse, 1; Downy Woodpecker, 2; Blue Jay, 3; Canada Jay, 1(?); Tree Sparrow, 12; Brown Creeper, 1; White-breasted Nuthatches, 2; Black-capped Chickadees, 9. Total, 8 species, 31 individuals. Heard Crows; saw (Dec. 22) Robin, 1; Herring Gulls. —MRS. C. D. COOK and RUBY R. MILLS.

London, Ont., vicinity of.—Dec. 24; 9 A.M. to 5 P.M. Sky overcast, light snow falling; ground snow-covered; wind moderate northeast; temp. 9 A.M. 28°, 5 P.M. 20°. Six parties working in different directions during the day. Herring Gull, 6; Great Blue Heron, 1; Quail, 9 (1 covey); Sparrow Hawk, 1; Screech Owl, 1; Hairy Woodpecker, 3; Downy Woodpecker, 6; Blue Jay, 15; Crow, 6; Bronzed Grackle, 1 (flock of 6 seen a few days ago); Pine Grosbeak, 32 (flock feeding on buds of an ironwood tree); Redpoll, 12; Tree Sparrow, 102; Junco, 9; Song Sparrow, 1; Cardinal, 4; Northern Shrike, 1; White-breasted Nuthatch, 9; Red-breasted Nuthatch, 2; Black-capped Chickadee, 75; Golden-crowned Kinglet, 27. Total, 21 species, 323 individuals. Others seen recently Brown Creeper, Meadowlark, Robin, and Goldfinch (flock of 7).—E. M. S. DALE, EDWARD DALY, ELI DAVIS, G. GILLESPIE, W. E. GREENE, E. H. MCKONE, G. T. E. MARTIN, J. R. MCLEOD, T. D. PATTERSON, W. E. SAUNDERS, C. G. WATSON. (McIlwraith Ornithological Club)

Ottawa, Ont.—Dec. 26. Five separate parties. First party, 8.15 A.M. to 2.15 P.M., Dominion Observatory to Black Rapids and return, 14 miles; second party, 8.50 A.M. to 2.25 P.M., from Billing's Bridge 6 miles south on Metcalfe Road and return by C. P. Ry. tracks and road, 14 miles; third party, 9.45 A.M. to 5 P.M., Kirk's Ferry, P.Q., to Hull, P.Q., west of Gatineau River, 11 miles; fourth party, 9.45 A.M. to 5 P.M., Kirk's Ferry, P.Q., to Hull, P.Q., east of Gatineau River, 16 miles; fifth party, 10.45 A.M. to 4.45 P.M., Rockcliffe and eastward, returning along Ottawa River, 12 miles. All on foot. Occasional clouds; 5-in. snow; wind light, east near ground, west in upper air. Temp. -6.5° at start, +9° at return. Merganser (sp.?, not Hooded), 2; Canada Ruffed Grouse, 10; Sharp-shinned Hawk, 1 (C. E. J.); Hairy Woodpecker, 4; Downy Woodpecker, 2; Blue Jay, 5; Canada Jay, 3; Crow, 15; Pine Grosbeak, 26; Redpoll, 42; Pine Siskin, 7; Snow Bunting, 13; Northern Shrike, 1; White-breasted Nuthatch, 3; Red-breasted Nuthatch, 1; Black-capped Chickadee, 33; Robin, 3. Total, 17 species, 171 individuals.—D. BLAKELEY, RALPH E. DELURY, DANIEL B. DELURY, PHILIP F. FORAN, CLAUDE E. JOHNSON, HARRISON F. LEWIS, HOYES LLOYD, C. L. PATCH. (Ottawa Field-Naturalists' Club.)

Toronto, Ont. (outskirts).—Dec. 25; 11 A.M. to 5 P.M. Clear; 2 in. of snow; wind light, north; temp. 18° at start, 14° at return. Ten miles on foot. Observers together. Great Black-backed Gull, 1; Herring Gull, 5; American Merganser, 2; Scaup Duck, 11; Old Squaw, 53; American Scoter, 31 (first record in eight years); Hairy Woodpecker, 1 (male); Downy Woodpecker, 6; Red-headed Woodpecker, 3; (first winter record); Horned Lark, 1; Blue Jay, 4; Tree Sparrow, 105+; Slate-colored Junco, 2; Song Sparrow, 1; Brown Creeper, 2; White-breasted Nuthatch, 8+; Black-capped Chickadee, 33; Robin, 1 (first December record). Total, 18 species, about 265 individuals. Ten-power binoculars used. Large number of Ducks seen but too far out for identification.—PAUL HARRINGTON and F. A. E. STEAR.

Brunswick, Me. (Maquoit Bay, Merrymeeting Park).—Dec. 28; 9.30 A.M. to 1 P.M., 2 to 4 P.M. Fair; wind, northwest; 3 to 6 inches of snow; temp. 16° at start. Nine miles on foot.

Herring Gull, 45; Downy Woodpecker, 1; Blue Jay, 2; Crow, 4; Evening Grosbeak, 33; Chickadee, 1.—A. O. GROSS, E. H. NASON and J. W. WALCH.

Bucksport, Maine. (Woods north of town and along river).—Dec. 25; 9.30 A.M. to 1.30 P.M. Cloudy, no sun; 3 in. snow; wind north, light; temp. 0° at start, 12° at return. Five miles on foot. Herring Gull, 5; Duck (sp.?), 1; Ruffed Grouse, 2; Crow, 6; Junco, 2; Chickadee, 10; Golden-crowned Kinglet, 5. Total, 7 species, 31 individuals. Dec. 26, Blue Jay, 1; Pine Grosbeaks and one Downy Woodpecker seen every day except on the 25th.—G. L. BLODGET.

Goffstown, N. H. (to Dunbarton and back).—Dec. 25; 11.45 A.M. to 4.30 P.M. Cloudy, snowing; 8 in. snow; wind north, light; temp. 22° at start, 22° at return. Eight miles on foot. Ruffed Grouse, 1; Ring-necked Pheasant, 5; Pine Grosbeak, 4; Tree Sparrow, 16; Chickadee, 1; Golden-crowned Kinglet, 1. Total, 6 species, 28 individuals. A Slate-colored Junco was seen Dec. 26, and a Northern Shrike, Dec. 18.—MAURICE E. BLAISDELL.

Jaffrey, N. H.—Dec. 26; 10.15 A.M. Clear; 5 in. of snow; wind variable, northeast to south, light; temp. 26° at start, 18° at return. Six miles on foot. Great-horned Owl, 1, (heard) Downy Woodpecker, 1; Pileated Woodpecker, 1 (heard); Blue Jay, 4; Chickadee, 20; Golden-crowned Kinglet, 4. Total, 6 species, 31 individuals. On Dec. 22, I saw 2 Pine Grosbeaks.—NINA G. SPAULDING.

Wilton, N. H.—Dec. 26; 7.30 to 8 and 9 to 11.30 A.M. Bright sun; 4 in. snow; no wind; temp. 12° to 30° . Starling, 3; Chickadee, 5. Total, 2 species, 8 individuals. I have made many Christmas lists, but this is the poorest, and indicates very clearly how very scarce winter birds are in this vicinity.—GEORGE G. BLANCHARD.

Bennington, Vt.—Dec. 26; 9.55 A.M. to 4 P.M. Clear, 3 in. of snow; no wind; temp. 6° at start, 10° at return. Eight miles on foot. Ruffed Grouse, 3; Screech Owl, 1; Hairy Woodpecker, 3; Downy Woodpecker, 3; Blue Jay, 2; Crow, 22; Starling, 4; Tree Sparrow, 9; Slate-colored Junco, 3; Black-capped Chickadee, 5. Total, 10 species, 55 individuals. Also English Sparrow, 20.—CAROL JONES.

Bennington, Vt.—Dec. 26; 9 A.M. to 12.30 P.M. Sky clear overhead but thin feathery clouds around the horizon; 3 to 5 in. snow; wind north, very light at start, diminishing to none at return; temp. 0° at start, 30° at return. Five miles on foot through meadows, partially wooded hillsides and swamps. Ruffed Grouse, 8; Hairy Woodpecker, 1; Downy Woodpecker, 1; Crow, 1; Starling, 20+; Pine Siskin, 6; Snow Bunting, 3; Tree Sparrow, 25+; White-breasted Nuthatch, 1; Black-capped Chickadee, 1. Total, 10 species, 67+ individuals. The scarcity of Crows and entire absence of Blue Jays are unusual. Both Pine and Evening Grosbeaks were observed a few days ago.—DR. LUCRETIVS H. ROSS.

Wells River, Vt. (North, South and West of Wells River within a radius of 2 miles).—Dec. 27. Cloudy; 5 in. of snow; wind south, light; temp. 3° at start, 16° at close. Observer covered 9 miles on foot. Merganser, 9; Ruffed Grouse, 6; Downy Woodpecker, 2; Blue Jay, 4; Pine Grosbeak, 5; Brown Creeper, 1; Chickadee, 47 (8 flocks). Total, 7 species, 74 individuals. On the preceding day a Hairy Woodpecker and a flock of 7 Evening Grosbeaks were noted.—WENDELL P. SMITH.

Attleboro, Mass. (to Rehoboth Cedar Swamp and back).—Dec. 27; 9 A.M. to 4.15 P.M. Cloudy, then clearing; $\frac{1}{4}$ in. of snow; wind west, light; temp. 28° at start, 30° at return. Fifteen miles on foot. Observers together. Ruffed Grouse, 15; Ring-necked Pheasant, 2; Marsh Hawk, 1; Goshawk, 1; Red-shouldered Hawk, 1; Barred Owl, 1; Downy Woodpecker, 1; Blue Jay, 1; Crow, 18; Starling, 9; Tree Sparrow, 42; Slate-colored Junco, 39; Northern Shrike, 1; Black-capped Chickadee, 45; Golden-crowned Kinglet, 10. Total, 15 species, about 187 individuals.—CLARENCE RICHARDSON and MANLY B. TOWNSEND.

Cohasset, Mass.—Dec. 26. Dull and cloudy; occasional snow-squall; wind north to northwest; temp. 23° to 29° . Seven miles covered; uplands, woods, and rocky seashore. Horned Grebe, 4; Dovekie, 12; Black-backed Gull, 4; Herring Gull, 50; Red-breasted Merganser, 4; American Golden-Eye, 4; Old Squaw, 3; White-winged Scoter, 1; Canada Goose, 50; Ruffed Grouse, 3; Downy Woodpecker, 1; Flicker, 6; Blue Jay, 6; Horned Lark, 14; Crow, 6;

Starling, 75; Evening Grosbeak, 8; Pine Grosbeak, 2; Goldfinch, 14; White-throated Sparrow, 1; Tree Sparrow, 8; Junco, 85; Song Sparrow, 4; Myrtle Warbler, 20; Brown Creeper, 2; Cedar Waxwing, 1; Chickadee, 40; Golden-crowned Kinglet, 3; Robin, 25. Total, 29 species, 456 individuals. In addition to above list, with same ground covered on Dec. 25, during northeast storm, we observed 1 Sparrow Hawk, 4 Purple Finches, and 100 Dovekies.—MR. and MRS. CHARLES L. WHITTLE and LAWRENCE B. FLETCHER.

Edgartown, M. V., Mass.—Dec. 27; 9.30 A.M. to 2.30 P.M. After 5 rainy or cloudy days, no frost in ground, light snow, gradually growing lighter until about 11 A.M. it ceased. The sun appeared shortly after noon and shone brightly the rest of the day. Wind west, light; temp. 32° at start, 38° at return. Five miles on foot. Loon, 1; Black-backed Gull, 1; Herring Gull, 70; Golden-eye Duck, 27; White-winged Scoter, 1; Red-tailed Hawk, 1; Flicker, 2; Horned Lark, 45; Blue Jay, 3; Crow, 16; Starling, 12; Meadowlark, 37; Tree Sparrow, 25; Junco, 7; Song Sparrow, 10; Northern Shrike, 2; Palm Warbler, 2; Red-breasted Nuthatch, 2; Chickadee, 20; Golden-crowned Kinglet, 3. Total, 20 species, 287 individuals. My records show that this is the fourth winter in succession we have had one or two Palm Warblers here, yellow under tail.—MONA W. WORDEN.

[Absence of the Myrtle Warbler from this list is the one circumstance which seems to discredit this interesting record of Palm Warbler in winter.—ED.]

Holyoke, Mass. (vicinity of Mt. Tom and Mt. Holyoke Ranges).—Dec. 26; 8 A.M. to 5 P.M. Ground white with 2 to 3 in. of snow; bright sun all day; slight wind, north to north-west; temp. 12° at start, 17° at return; twelve to 14 miles on foot, partly by automobile. Three observers together in morning, joined by fourth in afternoon. American Merganser, 8 (1 flock); Ring-necked Pheasant, 2; Ruffed Grouse, 2; Sparrow Hawk, 3; Barred Owl, 1; Hairy Woodpecker, 4; Downy Woodpecker, 6; Blue Jay, 9; Crow, 63; Starling, 49; Meadowlark, 2; Pine Grosbeak, 11 (1 flock); Goldfinch, 54 (1 flock); Tree Sparrow, 89 (1 flock, 50; another, 35); Northern Shrike, 1 (chasing Chickadee); Mockingbird, 1; White-breasted Nuthatch, 2; Chickadee, 28; Golden-crowned Kinglet, 2. Total, 19 species, 337 individuals. Mr. Bagg has been keeping watch of the Mockingbird since October 20.—JOHN A. FARLEY, ROBERT L. COFFIN, ARTHUR B. MITCHELL, and AARON C. BAGG.

Ipswich, Mass. (town to and over the Dunes and the Crane Estate).—Dec. 26; 8.30 A.M. to 3.30 P.M. Clear or partly cloudy; 2 in. of snow; wind north, moderate; temp. about 25°. Ten miles on foot. Observers together except for a short time in afternoon. Holbein's Grebe, 8; Horned Grebe, 1; Red-throated Loon, 1; Dovekie, 1; Great Black-backed Gull, 6; Herring Gull, 300; Red-breasted Merganser, 150; Black Duck, 1,000; American Golden-eye, 60; Bufflehead, 1; Old Squaw, 2; American Scoter, 1; White-winged Scoter, 1; Ring-necked Pheasant, 10; Hairy Woodpecker, 1; Downy Woodpecker, 1; Northern Flicker, 3; Horned Lark, 7; American Crow, 175; Starling, 13; Meadowlark, 2; Ipswich Sparrow, 1; Savannah Sparrow, 2; Tree Sparrow, 25; Slate-colored Junco, 4; Myrtle Warbler, 24; Chickadee, 23; Robin, 2. Total, 28 species, about 1,825 individuals. American Merganser, 15 (at North Station, Boston, seen from train).—Six members of BROOKLINE BIRD CLUB, by L. R. TALBOT, President.

Ipswich, Mass. (from Little Nahant to Ipswich).—Dec. 26; 11.30 A.M. to 4 P.M. Cloudy, clearing in afternoon; 3 in. of snow; wind, northwest, light; temp. 24° at start, 28° at return. Automobile and about 4 miles on foot. Observers together. Holbein's Grebe, 3; Horned Grebe, 1; Dovekie, 17; Black-backed Gull, 5; Herring Gull, about 500; Ring-billed Gull, 1; Red-breasted Merganser, 32; Black Duck, 80; Bufflehead, 23; Golden-eye, 30; Old Squaw, 5; American Scoter, 1; White-winged Scoter, 10; Downy Woodpecker, 1; Crow, about 300; Starling, 100; Pine Grosbeak, 6; Northern Shrike, 2; Myrtle Warbler, 14; Brown Creeper, 1; Red-breasted Nuthatch, 1; Chickadee, 5. Total, 22 species, about 1,138 individuals.—DANIEL O., GRACE K., and OSBORNE EARLE.

Leominster, Mass. (Leominster to Lowell and return).—Dec. 26; 7.30 A.M. to 5.30 P.M. Clear; 3 in. of snow; no wind; temp. 28° at start, 20° at return. Herring Gull, 10; Cooper's

Hawk, 1; Pheasant, 1; Hairy Woodpecker, 1; Downy Woodpecker, 2; Blue Jay, 6; Crow, 1; Starling, 16; Tree Sparrow, 3; Chickadee, 19; Goldfinch, 5; White-breasted Nuthatch, 2; Northern Shrike, 2; Junco, 1. Total, 14 species, 69 individuals. A flock of about 20 Evening Grosbeaks, and 6 to 8 Pine Grosbeaks were here at my home in Leominster for several days two weeks ago. None observed today.—EDWIN RUSSELL DAVIS.

Mattapoisett, Mass.—Dec. 26; 8.30 to 11 A.M., 2 to 3.30 P.M. Overcast; light snow; wind north, light; temp. 28° to 30°. Seven miles on foot. Observers together. Horned Grebe, 18; Loon (Great Northern Diver), 4; Black-backed Gull, 2; Herring Gull, 28; Merganser, 8; Red-breasted Merganser, 8; Bluebill, 3; Golden-eye, 29; Bufflehead, 8; Old Squaw, 24; American Scoter, 34; White-winged Scoter, 6; Surf Scoter, 2; Bob-White, 10; Pheasant, 1; Belted Kingfisher, 1; Flicker, 8; Blue Jay, 18; Crow, 12; Starling, 39; Meadowlark, 16; Purple Grackle, 1; American Goldfinch, 3; Tree Sparrow, 2; Junco, 2; Song Sparrow, 2; Northern Shrike, 1; Myrtle Warbler, 52; Mockingbird, 1; Chickadee, 38; Golden-crowned Kinglet, 2; Robin, 5. Total, 32 species, 388 individuals.—MR. and MRS. J. E. NORTON SHAW.

New Bedford and Dartmouth, Mass.—Dec. 26; 8.45 A.M. to 12.45 P.M.; 1.45 to 4.30 P.M. Ground partly covered with light fall of snow; sun out at times, but mostly cloudy, with frequent light snow-flurries; temp. at start, 26°, return, 29°; about 9 miles on foot, through woods and open fields in A.M., along shore in P.M. Observers together, except for about one hour in A.M. Horned Grebe, 9; Holboell's Grebe, 2; Black-backed Gull, 24; Herring Gull, 31; Ring-bill Gull, 1; American Merganser, 2; American Golden-eye, 4; Scoter, 4; Ducks (unidentified), 69; Quail, 14; Red-tail Hawk, 1; Red-shouldered Hawk, 2; Sharp-shinned Hawk, 2; Hairy Woodpecker, 2; Downy Woodpecker, 7; Flicker, 9; Horned Lark, 41; Blue Jay, 35; Crow, 30; Goldfinch, 97; Starling, 1066 (1 flock, 1,000 est.); Meadowlark, 3; Evening Grosbeak, 22; Tree Sparrow, 57; Junco, 76; Song Sparrow, 45; Northern Shrike, 2; Myrtle Warbler, 100; Brown Creeper, 4; Chickadee, 115; Bluebird, 13; Golden-crowned Kinglet, 7; Robin, 6; Total, 33 species, 1,902 individuals.—EDITH FRANCIS WALKER, and ALICE PALMER TERRY.

Sharon, Mass.—Dec. 28; 8 A.M. to 3 P.M. Clear; 2 in. of snow; light west wind; temp. 14° at start, 20° at return. Five miles on foot. Slate-colored Junco, 60; Tree Sparrow, 16; Purple Finch, 3; Goldfinch, 22; Chickadee, 25; White-breasted Nuthatch, 3; Downy Woodpecker, 3; Hairy Woodpecker, 3; Flicker, 2; Crow, 14; Blue-jay, 20; Starling, 2; Northern Shrike, 3; Quail, 15; Ruffed Grouse, 6; Ring-necked Pheasant, 5. Total, 16 species, 202 individuals.—MRS. HARRIET U. GOODE and HARRY G. HIGBEE.

Sheffield, Mass.—Dec. 27; 10 A.M. to 4 P.M. Partly cloudy; light snow on ground; wind light northwest; temp. 26°. (About 5 miles, upland pasture, wooded swamp, pine and hemlock groves.) Ruffed Grouse, 5; Hairy Woodpecker, 3; Downy Woodpecker, 1; Blue Jay, 6; Crow, c. 10; Starling, 3; Tree Sparrow, 8; Slate-colored Junco, 3; Northern Shrike, 1; Chickadee, c. 25; Golden-crowned Kinglet, 2. Total, 11 species; about 62 individuals. (7 Pine Grosbeaks Dec. 26, H. G.).—WALTER PRICHARD EATON, HAMILTON GIBSON and TERTIUS VAN DYKE.

Southampton, Mass.—Dec. 26; 8.30 A.M. to 12 M. and 1.30 to 3.30 P.M. Clear; light snow over ice; no wind; temp. 9° above. Eight or 9 miles on foot. Ruffed Grouse, 2; Hairy Woodpecker, 1; Downy Woodpecker, 7; Blue Jay, 9; Evening Grosbeak, 4; Pine Grosbeak, 9; Tree Sparrow, 41; Chickadee, 11. Total, 8 species, 84 individuals.—BESSIE M. GRAVES.

Weston, Mass.—Dec. 26; 7.40 to 10.40 A.M. and 2 to 4 P.M. Partly fair but mostly overcast; 2 inches of snow on ground; light wind; temp. 20° to 32°. On foot. Ruffed Grouse, 1; Ring-necked Pheasant, 4; Hairy Woodpecker, 2; Downy Woodpecker, 3; Blue Jay, 12; Crow, 12; Starling, 2; Northern Shrike, 1; Tree Sparrow, 35; Junco, 8; Brown Creeper, 3; White-breasted Nuthatch, 1; Chickadee, 18; Golden-crowned Kinglet, 7. Total, 14 species, 109 individuals.—WARREN F. EATON.

Williamstown, Mass.—Dec. 26; 9.30 A.M. to 12 M. Clear; ground completely covered with about 4 in. of snow; no wind; temp. —4° at start, 15° at return. Five miles. Ruffed Grouse, 2; Blue Jay, 1; Crow, 2; Evening Grosbeak, 20; Slate-colored Junco, 7; Northern

Shrike, 3; Brown Creeper, 1; White-breasted Nuthatch, 2; Black-capped Chickadee, 9; Golden-crowned Kinglet, 5. Total, 10 species, 51 individuals.—WM. J. CARTWRIGHT.

East Providence, Barrington, and Bristol, R. I.—Dec. 27; 7.15 A.M. to 5 P.M. Cloudy and light snow until 10 A.M., gradually clearing till 12 M., and very clear all afternoon; 2 in. of snow, 1½ in. of ice in woods, early; ground elsewhere icy or thinly covered with snow, which melted for the most part in afternoon; wind 17 miles, west, dropping to 12 miles northwest at finish. Temp. 25° at start, maximum 36° at 3 P.M., 30° at finish. Eighteen miles afoot and three jumps by trolley. Crescent Park to Bullock's Point and return; Barrington, through swamp to beach, out Rumstick Neck and return; Bristol to south end of Mount Hope, shore of Mount Hope Bay to Bristol Narrows, and return to Poppasquash. Observers together. Horned Grebe, 10; Black Duck, 5; American Scaup, 4,600 (est.); American Golden-eye, 85; Old Squaw, 25; Sharp-shinned Hawk, 1; American Sparrow Hawk, 1; Bob-white (tracks of) 15; Ring-necked Pheasant (?) (tracks of) 2; Herring Gull, 280 (est.); Downy Woodpecker, 8; Northern Flicker, 12; Blue Jay, 7; American Crow, 45; Starling, 17; American Goldfinch, 5; Tree Sparrow, 12; Song Sparrow, 10; Swamp Sparrow, 3; Northern Shrike (?), 1; Myrtle Warbler, 50; White-breasted Nuthatch, 8; Golden-crowned Kinglet, 13. Total, 24 species; approx. 5,270 individuals. The pattern of head and throat, call-note, and secretive habits in swamp of Swamp Sparrow noted. Two Juncos and 1 Ruffed Grouse were seen in North Scituate, Dec. 26, by H. E. Childs. The total absence of Meadowlarks, Juncos, and scarcity of Tree Sparrows is notable.—HENRY E. CHILDS, JOHN ALDRICH, and RUSSELL BUGBEE (members of Tech Bird Club, Technical High School).

Graniteville, R. I. to Timerock, R. I.—Dec. 27; 9.30 A.M. to 1 P.M., 2 to 4.30 P.M. Fair; about ½ in. of snow on ground; wind, none to light northwest; temp. 45° to 35°. Ruffed Grouse, 1; Blue Jay, 5; Crow, 5; Starling, 2; Goldfinch, 14; Pine Siskin, 5; Tree Sparrow, 48; Slate-colored Junco, 13; Song Sparrow, 2 (1 in song); Black-capped Chickadee, 3; Golden-crowned Kinglet, 4. Total, 11 species, 102 individuals.—EDWARD H. PERKINS.

Newport, R. I.—Dec. 23; 9 A.M. to 5 P.M. Cold rain all morning; fairly clear in the afternoon; ice on the pond. Temp. at start, 18°, at finish, 16°. Distance covered about 15 miles. Three observers, each alone. Holboell's Grebe, 5; Horned Grebe, 1; Loon, 6; Dovekie, 12; Great Black-backed Gull, 3; Herring Gull, 600 (approximately); Cormorant (Common or Double-crested), 30; Red-breasted Merganser, 3; Black Duck, 7; American Golden-eye, 23; Old Squaw, 7; American Scoter, 1; White-winged Scoter, 11; American Coot, 9; Wilson's Snipe, 1; Sparrow Hawk, 2; Short-eared Owl, 2; Downy Woodpecker, 2; Northern Flicker, 1; Horned Lark, 9; Blue Jay, 2; American Crow, 6; Starling, 60 (approximately); Meadowlark, 10; American Goldfinch, 11; Tree Sparrow, 19; Slate-colored Junco, 2; Song Sparrow, 11; Northern Shrike, 1; Brown Creeper, 1; White-breasted Nuthatch, 1; Red-breasted Nuthatch, 2; Black-capped Chickadee, 11; Golden-crowned Kinglet, 11. Total 34 species, 883 individuals. On Dec. 26, Lesser Scaup Duck, 2; Marsh Hawk, 1; Belted Kingfisher, 2; Red-winged Blackbird, 1; Snow Bunting, 7; Swamp Sparrow, 1; Fox Sparrow, 5; Myrtle Warbler, 1; Robin, 1.—SYDNEY and EVERETT GREASON, and HENRY BULL.

Warwick, R. I.—Dec. 25; 10.30 A.M. to 3 P.M. Cloudy, with fine rain at start; ground ice covered, with some snow in sheltered spots, wind northeast, strong; temp. 26°. Seven miles on foot. Scaup, 1,000 (est.); Flicker, 1; Blue Jay, 3; Crow, 27; Starling, 40; Goldfinch, 24; Tree Sparrow, 10; Slate-colored Junco, 15; Myrtle Warbler, 1; White-breasted Nuthatch, 1; Chickadee, 10; Golden-crowned Kinglet, 12. Total 12 species, (about) 1,153 individuals.—HARRY S. HATHAWAY.

Bristol, Conn. (northwest quarter).—Dec. 26; 7.20 A.M. to 3.40 P.M. Clear; flare of ice covered by ½ in. fresh snow; wind northeast, light; temp. 17° at start, 29° at return. Thirteen to 14 miles on foot. Sparrow Hawk, 1; Hairy Woodpecker, 2; Downy Woodpecker, 1; Blue Jay, 41; Crow, 15; Starling, 266; Tree Sparrow, 56; Northern Shrike, 2; White-breasted Nuthatch, 1; Chickadee, 3. Total, 10 species, 388 individuals. R. W. Ford and F. Comes left me at 11.30 A.M. Hairy Woodpecker seen by myself after the others left. Downy Wood-

pecker and White-breasted Nuthatch were seen by Messrs. Ford and Comes after leaving me. A Screech Owl known to be in a certain hole could not be made to show himself, nor was it accessible.—FRANK BRUEN.

Fairfield, Conn. (Birdcraft Sanctuary and Fairfield Beach).—Dec. 26; 7 A.M. to 4 P.M. Cloudy, with light snow; temp. 30°. Herring Gull, 80; Black-crowned Night Heron, 8; Scaup, 12; Golden-eye, 3; Old Squaw, 22; Surf Scoter, 4; White-winged Scoter, 35; Sharp-shinned Hawk, 1; Red-shouldered Hawk, 1; Sparrow Hawk, 1; Screech Owl, 2; Downy Woodpecker, 5; Blue Jay, 5; Crow, 4; Starling, 50 (flock); Purple Finch, 3; Goldfinch, 7; White-throated Sparrow, 4; Tree Sparrow, 7; Junco, 35; Song Sparrow, 7; Northern Shrike, 1; Myrtle Warbler, 3; Catbird, 1; White-breasted Nuthatch, 2; Chickadee, 8; Golden-crowned Kinglet, 3. Total, 27 species, 314 individuals; five Great Black-backed Gulls seen Dec. 22.—FRANK NOVAK, Warden.

Fairfield, Conn.—Dec. 27; 8.10 A.M. to 12.40 P.M. Partly cloudy; ground, with about $\frac{1}{2}$ in. of new-fallen snow; wind light southwest; temp. 28° to 35°. Nine miles on foot. Horned Grebe, 1; Loon, 1; Herring Gull, 43; Mallard, 3; Scaup Duck, 7; Golden-eye, 14; Old Squaw, 85; White-winged Scoter, 47; Surf Scoter, 10; Night Heron, 2; Red-shouldered Hawk, 1; Sparrow Hawk, 1; Screech Owl, 1; Kingfisher, 1; Downy Woodpecker, 3; Blue Jay, 7; Crow, 9; Starling, 44; Purple Finch, 4; Tree Sparrow, 42; Junco, 7; Song Sparrow, 4; Northern Shrike, 2; Brown Creeper, 1; White-breasted Nuthatch, 2; Chickadee, 24; Golden-crowned Kinglet, 2. Total, 27 species, 368 individuals.—ARETAS A. SAUNDERS.

Hartford, Conn.—Dec. 26; 9.30 A.M. to 5 P.M. (dark.) Clear. 2-6-mile wind; ground covered with light crust, and trees with ice., temp. 17° to 27°. Walked about 14 miles, covering Elizabeth Park, Reservoir Park, and about 6 miles of rolling farm and woodland going from one park to the other. Alone. Ruffed Grouse, 2; Red-shouldered Hawk, 2; Sparrow Hawk, 2; Downy Woodpecker, 2; Blue Jay, 4; Crow, 100+; Starling, 25+; Tree Sparrow, 44; Junco, 40+; Northern Shrike, 1 (seen at distance of 50 ft.); Brown Creeper, 3; White-breasted Nuthatch, 4; Chickadee, 20; Golden-crowned Kinglet, 7; Total, 14 species, 256+ individuals. I saw 3 Pileated Woodpeckers on Dec. 18 and others saw a flock of 15 Evening Grosbeaks on Dec. 17.—GEO. T. GRISWOLD (Hartford Bird Study Club).

Hartford, Conn.—Dec. 26; 9 A.M. to 12 M. Clear; ground snow-covered; light northwest wind; temp. 18°. Ruffed Grouse, 1; Red-shouldered Hawk, 1; Barred Owl, 1; Screech Owl, 1; Hairy Woodpecker, 3; Downy Woodpecker, 2; Blue Jay, 6; Crow, 34; Starling, 56; Pine Grosbeak, 6; Tree Sparrow, 27; Slate-colored Junco, 28; White-breasted Nuthatch, 3; Chickadee, 22. Total, 14 species, 191 individuals.—CLIFFORD M. CASE.

Meriden, Conn.—Dec. 26. Clear sky, becoming partly cloudy; ground crusted with $\frac{1}{2}$ in. of snow, covered with a light fall, making good tracking; trees and shrubs ice-coated from ice-storm of Dec. 24; wind north; temp. 26° to 30° to 24°. Forenoon walk, three hours, 4 miles of residential outskirts, farm section and swamp woodland. Afternoon walk, two hours, 3 miles—1 mile along Quinnipiac River, and near sewage-disposal beds. Black Duck 31; Pintail Duck, 2 (flew directly overhead); Belted Kingfisher, 1; Downy Woodpecker, 2; Horned Lark, 23; Blue Jay, 7; Crow, 100+; Starling, 75+ (25 scattered and one flock of 50+); Tree Sparrow, 38; Black-capped Chickadee, 36. Total, 10 species, 316 individuals; also English Sparrow, 16 (decreasing); one Sparrow Hawk and nine Golden-crowned Kinglets seen on Dec. 25.—LESTER W. SMITH.

New London, Conn. (to Niantic and around Black Point).—Dec. 27; 8.30 A.M. to 4 P.M. Snowing at start, afterwards clear; light covering of snow; wind west, very light; temp. 29° at start, 38° at return. Fifteen miles on foot. Herring Gull, 124; Great Black-backed Gull, 1; Red-breasted Merganser, 28; Black Ducks, 2; Scaup Duck, 100 (est.); Golden-eye, 30; Old Squaw, 2; Canada Goose, 1; Sharp-shinned Hawk, 1; Crow, 20; Blue Jay, 6; Starling, 1,000 (est.); Tree Sparrow, 6; Song Sparrow, 8; Northern Shrike, 1; Myrtle Warbler, 1; Chickadee, 22. Total, 20 species, about 1,315 individuals. Also English Sparrow, 50.—FRANCES MINER GRAVES.

South Windsor, Conn.—Dec. 25; six hours. Snow in the morning, cloudy all day; very little wind; temp. 27°. About 7 miles. Herring Gull, 3; Merganser, 6; Black Duck, 2; Quail, 8; Ring-necked Pheasant, 4; Red-shouldered Hawk, 2; Sparrow Hawk, 1; Long-eared Owl, 1; Short-eared Owl, 6; Hairy Woodpecker, 1; Downy Woodpecker, 6; Prairie Horned Lark, 30; Blue Jay, 5; Crow, 45; Starling, 10; Meadowlark, 8; Purple Finch, 25; Goldfinch 35; Savannah Sparrow, 3; Tree Sparrow, 150; Song Sparrow, 14; Swamp-Sparrow, 1; Brown Creeper, 5; White-breasted Nuthatch, 6; Chickadee, 23. Total, 25 species, 399 individuals.—C. W. VIBERT.

Albany, N. Y. (west of the city).—Dec. 25; 9 A.M. to 2 P.M. Cloudy; 2 in. of new-fallen snow; wind northwest, light; temp. 8° at start, 14° at return. Twelve miles on foot. Sparrow Hawk, 1; Blue Jay, 5; Crow, 728; Starling, 37; Redpoll, 45; Tree Sparrow, 120; Red-breasted Nuthatch, 2; Chickadee, 9. Total, 8 species, 947 individuals. A number of Northern Shrikes seen this fall and winter and Pine Grosbeaks twice reported. Downy Woodpeckers and White-breasted Nuthatches are numerous in certain localities.—CLARENCE HOUGHTON.

Buffalo, N. Y. (Niagara River Shores).—Dec. 26; 8 A.M. to 3 P.M. Sky mostly overcast; about 3 in. of snow; wind southwest, light; temp. 21° at start, 24° at return. Observers together. Iceland Gull, 1; Herring Gull, 360; Ring-billed Gull, 90; Bonaparte's Gull, 375; Merganser, 35; Red-breasted Merganser, 55; Mallard, 4; Black Duck, 215; Scaup Duck, 400; Golden-eye, 225; Old Squaw, 375; Ring-necked Pheasant, 1; Downy Woodpecker, 2; Crow, 350; White-breasted Nuthatch, 2; Chickadee, 8. Total, 16 species, (about) 2,498 individuals. The smaller land-birds have been scarce this winter. A Whistling Swan was swept over Niagara Falls on Dec. 17. The Iceland Gull noted today was an immature specimen, and was observed at close range as it rested on the rocks, with Herring and Ring-billed Gulls for companions.—JAMES SAVAGE, THOMAS L. BOURNE, and BARNARD S. BRONSON.

Collins, N. Y. (hospital grounds and Cattaraugus Indian Reservation).—Dec. 26; 10 A.M. to 4 P.M. Clear in A.M., light snow in P.M.; no wind. Sharp-shinned Hawk, 1; Hairy Woodpecker, 2; Downy Woodpecker, 2; Prairie Horned Lark, 3; Blue Jay, 5; Crow, 2; Goldfinch, 1; Tree Sparrow, 30; Slate-colored Junco, 20; Song Sparrow, 1; Cardinal, 6 (studied closely; live here; seen for years past); Northern Shrike, 1; White-breasted Nuthatch, 3; Chickadee, 14. Total, 14 species, about 91 individuals. Robin, Screech Owl, Barred Owl seen last week in December and known to be wintering.—(DR.) ANNE E. PERKINS.

Fort Plain, N. Y.—Dec. 26; 8 A.M. to 12.30 P.M. and 2 P.M. to 5 P.M. Bright sunshine; 6 in. snow; wind northwest, light; temp. —16° at start; +10° at return. Route, vicinity of Mohawk River, Abeel Island, Little Run, Oak and Otsquago Creek Valleys, including heavy woods on Oak Hill. Observers together during morning; also beagle hound. About 15 miles on foot. Ruffed Grouse, 6; Hairy Woodpecker, 1; Downy Woodpecker, 4; Blue Jay, 1; American Crow, 75; Starling, 80; Tree Sparrow, 25; Northern Shrike, 1; Brown Creeper, 1; White-breasted Nuthatch, 3; Black-capped Chickadee, 25. Total, 11 species, 223 individuals. Fresh tracks in snow: Ring-necked Pheasant, pursued by mink, takes flight; Dec. 10, 3 Pine Grosbeaks; Dec. 20, Robin, pursued by Northern Shrike, escapes.—DOUGLAS AYRES, JR. and EVERETT LASHER.

Geneva, N. Y. (to Junius, border city swamp, Seneca Lake, and Glenwood Cemetery).—Dec. 29; 8.30 A.M. to 4 P.M. Cloudy; strong northwest wind; snow-squalls at intervals; temp. 33° to 15°. Observers working in different directions. Horned Grebe, 7; Loon, 1; Herring Gull, 51; Ring-billed Gull, 3; American Merganser, 13; Red-breasted Merganser, 5; Hooded Merganser, 1; Redhead, 4,000+; Canvasback, 12; Greater Scaup, 700+, Lesser Scaup, 5; American Golden-eye, 17; Bufflehead, 7; Old Squaw, 3; White-winged Scoter; 4; Pheasant, 19; Marsh Hawk, 1; Sparrow Hawk, 2; Hairy Woodpecker, 1; Downy Woodpecker, 5; Crow, 500+; Starling, 1; Meadowlark, 2; Redpoll, 7; Goldfinch, 3; Pine Siskin, 1; Song Sparrow, 3; Tree Sparrow, 75; Junco, 6; Brown Creeper, 3; White-breasted Nuthatch, 13; Black-capped Chickadee, 38; Golden-crowned Kinglet, 7. Total, 33 species, 5,516 individuals.—E. H. EATON, MRS. H. H. HENDERSON, and MALCOLM S. JOHNSTON.

Marcellus, N. Y. (to Otisco Lake and return through Navarino and Pleasant Valley).—Dec. 27; 10.10 A.M. to 5.15 P.M. Cloudy; 2 in. of snow; wind varying from southwest to northwest, light to fairly strong in afternoon; temp. 30° at start, 27° at return. Thick ice on ponds and lake with some open water in Nine Mile Creek. Eighteen miles on foot. Black Duck, 1; Ruffed Grouse, 2; Ring-necked Pheasant, 1; Downy Woodpecker, 2; Crow, 20; Tree Sparrow, 10; Brown Creeper, 1; White-breasted Nuthatch, 1; Chickadee, 22. Total, 9 species, 60 individuals.—NEIL HOTCHKISS.

Rochester, N. Y. (Highland, Ontario Beach and Durand-Eastman Parks and vicinities).—Dec. 23; 7.30 A.M. to 8 P.M. Cloudy; 2 in. of snow; wind south, 10 miles per hour; temp. 26° at start, 28° at return. Ten miles on foot. Observers together after 10 A.M. Horned Grebe, 4; Herring Gull, 200; Ring-billed Gull, 300; Merganser, 1; Scaup Duck, 6; White-winged Scoter, 1; Great Blue Heron, 1; Ring-necked Pheasant, 30; Screech Owl, 2; Downy Woodpecker, 3; Crow, 3; Tree Sparrow, 24; Slate-colored Junco, 10; Song Sparrow, 2; Cedar Waxwing, 2; Migrant Shrike, 1; White-breasted Nuthatch, 3; Red-breasted Nuthatch, 1; Chickadee, 22; Robin, 1. Total, 20 species, about 617 individuals. Northern Shrike noted by Mr. Edson on December 22 at Highland Park, about 5 miles from where the Migrant Shrike was noted on the 23d. Both of these birds were noted in good light at a distance of not over 30 feet with 6× and 8× binoculars.—WM. L. G. EDSON, R. E. HORSEY, F. R. SHUMWAY.

Syracuse, N. Y. (Liverpool, Long Branch to Pleasant Beach, same route for the past ten years).—Dec. 26; 9 A.M. to 3.25 P.M. Clear; 4 in. of snow; lake and outlet frozen; no wind; temp. 14° at start. Six miles on foot. Herring Gull, 19; Hairy Woodpecker, 1; Downy Woodpecker, 6; Crow, 5; American Goldfinch, 1; Tree Sparrow, 58; White-breasted Nuthatch, 3; Chickadee, 24. Total, 8 species, 117 individuals.—NETTIE M. SADLER.

Waterford, N. Y.—Dec. 26; 9 A.M. to 1 P.M., 3 to 5 P.M. Clear; 3 in. of snow; wind north, light; temp. 5° (20° at noon) 15° at return. Twelve miles along Hudson, abandoned Champlain Canal, wooded ravine, open field, marsh, and upland meadow; country nine-tenths open fields, the rest deciduous sprout wood-lots. River frozen solid except in one spot. American Merganser, 50; Whistler, 40; Duck (sp.), 50; Rough-legged Hawk, 1; Sparrow Hawk, 1; Kingfisher, 1; Downy Woodpecker, 3; Hairy Woodpecker, 1; Crow, 15; Starling, 100; Redpoll, 40; Tree Sparrow, 40; Song Sparrow, 7; Northern Shrike, 1; White-breasted Nuthatch, 3; Chickadee, 10. Total, 15 species, 313 individuals (+ the flock of Ducks). Dec. 22—Jay, 3; last Gull left; Meadowlark, 20. Dec. 25—Red-legged Black Duck, 6; Prairie Horned Lark, 2.—EDGAR BEDELL.

Schenectady, N. Y. (Vale Cemetery and Central Park).—Dec. 25; 9 A.M. to 12.30 P.M. and 2 to 4 P.M. Cloudy; several inches of snow; no wind; temp. 20°. Distance covered, about 8 miles. Ruffed Grouse, 1; Hairy Woodpecker, 1; Downy Woodpecker, 2; Blue Jay, 3; Crow, 15; Starling, 8; American Goldfinch, 5; Tree Sparrow, 25; White-breasted Nuthatch, 2; Chickadee, 8. Total, 10 species, 70 individuals. On December 20, I saw three Bluebirds at close range.—WALTER S. PHYLO.

New York City (Van Cortlandt Park, Bronx Park and Pelham Bay Park).—Dec. 26; 8.45 A.M. to 5 P.M. Clear; ground nearly bare; light west wind; temp. 26° to 34° to 28°. About 12 miles on foot. Loon, 2; Great Black-backed Gull, 1; Herring Gull, 400; American Merganser, 33; Canvasback, 1; Scaup Duck (sp.), 37; Great Blue Heron, 1; Black-crowned Night Heron, 60; Red-shouldered Hawk, 2; Rough-legged Hawk, 1; Duck Hawk, 1; Hairy Woodpecker, 1; Downy Woodpecker, 5; Blue Jay, 3; American Crow, 25; Starling, 200; White-throated Sparrow, 20; Tree Sparrow, 22; Field Sparrow, 5; Slate-colored Junco, 3; Song Sparrow, 29; Swamp Sparrow, 2; Brown Creeper, 7; White-breasted Nuthatch, 5; Black-capped Chickadee, 22; Robin, 1. Total, 26 species, 898 individuals. Dec. 25 in Van Cortlandt Park, 3 Black Ducks were seen by L. O. W.—L. N. NICHOLS, P. H. NELSON (8.45 A.M. to 12 M.), L. O. WILLIAMS, and R. FRIEDMAN.

New York City (from 231st Street subway station to Jerome Reservoir, Van Cortlandt Park, Williams Bridge, Bronx Park, Unionport, Castle Hill, and Clason Point).—Dec. 26;

9 A.M. to 5 P.M. Clear; ground bare, frozen; wind northwest, brisk; temp. 27° to 31° . Ten and a half miles on foot. Trolley used between West Farms and Unionport to save time traversing city streets. Observers together. Herring Gull, about 100; Black Duck, 2; Scaup sp., 1 (male); Ruddy Duck, 2 (males), 4 (females). (Ducks in Jerome Reservoir); Black-crowned Night Heron, 42 (Bronx Park colony); Sharp-shinned Hawk, 1; Red-tailed Hawk, 2; Red-shouldered Hawk, 1; Sparrow Hawk, 1; Downy Woodpecker, 4; Blue Jay, 1; Crow, 32; Starling, 8; Tree Sparrow, 20 (flock); Junco, 3; Song Sparrow, 3; Northern Shrike, 2 (1 in Bronx Park, 1 in Castle Hill); Brown Creeper, 1; White-breasted Nuthatch, 6; Black-capped Chickadee, 25. Total 20 species, about 260 individuals. GEORGE E. HIX, CARL CALSTROM, WILLIAM MCGINLEY, and BERNARD NATHAN. (The last three are Boy Scouts.)

Staten Island, N. Y. (Moravian Cemetery, Great Kills, and Princess Bay).—Dec. 25; 8.30 A.M. to 3 P.M. Remains of snow on ground; temp. about 28° . Observers together. Loon, 1; Horned Grebe, 1; Herring Gull, 300; Red-breasted Merganser, 1; Black Duck, 6; Scaup Duck, 3; Golden-eye, 100; Ruddy Duck, 1; Canada Goose, 8; Cooper's Hawk, 1; Sparrow Hawk, 1; Downy Woodpecker, 2; Crow, 50; Starling, 100; Goldfinch, 25; White-throated Sparrow, 1; Tree Sparrow, 1; Junco, 25; Song Sparrow, 1; Brown Creeper, 1; Chickadee, 15; Golden-crowned Kinglet, 6. Total, 22 species, about 650 individuals.—LESTER L. WALSH and GEORGE B. WILMOTT (Brooklyn Birdlovers' Club).

Douglaston, L. I., N. Y.—Dec. 26; 9 A.M. to 2 P.M. Generally fair; a little snow but not enough to cover the ground; wind negligible; temp. 20° at start, 32° at return. Observers together. Herring Gull, 25; Black-crowned Night Heron, 20 (a small wintering colony); Sparrow Hawk, 2; Large Owl, not identified, 1; Downy Woodpecker, 1; Flicker, 2; Horned Lark, 20; Crow, 150; Fish Crow, 30 (the relative numbers of the two species of Crows probably not accurate); Starling, 6; Vesper Sparrow, 5 (studied with $6\times$ glasses at 25 ft., habit of running on ground and white outer tail feathers observed); Tree Sparrow, 60; Song Sparrow, 5; Brown Creeper, 2; White-breasted Nuthatch, 1; Chickadee, 8; Golden-crowned Kinglet, 2. Total, 17 species, 340 individuals.—MR. and MRS. G. CLYDE FISHER.

East Marion, L. I., N. Y.—Dec. 27; 9.30 to 11.30 A.M. and 2 to 4 P.M. Clear after snow-flurry in early A.M.; wind northwest, light; temp. 28° at start, 31° at return. At least 4 miles on foot along bay shore, fields, and woods roads. Horned Grebe, 9; Common Loon, 1; Great Black-backed Gull, 1; Herring Gull, 175+; Ring-billed Gull, 1; Scaup, 100+; American Golden-eye, 20; Old Squaw, 11; White-winged Scoter, 6; Horned Lark, 16; Crow, 25+; Starling, 60+; Meadowlark, 8; Goldfinch, 1; Tree Sparrow, 18; Song Sparrow, 22; Myrtle Warbler, 15; Red-breasted Nuthatch, 1; Black-capped Chickadee, 7; Robin, 1. Total, 20 species, about 498 individuals.—MABEL R. WIGGINS.

Hempstead, L. I., N. Y.—Dec. 25; 8 to 11 A.M., 2 to 4.30 P.M. Hail in A.M., undecided and unfavorable all day; av. temp. 35° . Herring Gull, 315+; Wilson's Snipe, 1; Quail, 12+; Cooper's Hawk, (?), 1; Downy Woodpecker, 1; Horned Lark, 60+; Blue Jay, 1; Crow, 397+; Starling, 29; Tree Sparrow, 36; Slate-colored Junco, 17; Song Sparrow, 13; Swamp Sparrow, 3; Winter Wren, 1; Brown Creeper, 3; White-breasted Nuthatch, 2; Chickadee, 6. Total, 17 species, 898 individuals.—JEANNE O. RITTER and THEODORE G. ROEHNE.

Long Beach, L. I., N. Y.—Dec. 26; 9.45 A.M. to 4.15 P.M. Clear in morning, cloudy in afternoon; snow; temp. 26° . Thirteen miles covered on foot. Light northwest breeze. Observers remained together. Horned Grebe, 20; Herring Gull, 300; Great Black-backed Gull, 1; Red-breasted Merganser, 1; Black Duck, 28; Scaup Duck, 2; Bufflehead, 2; Old Squaw, 5; American Scoter, 25; White-winged Scoter, 175; Surf Scoter, 300; Snowy Owl, 1; Horned Lark, 52; Prairie Horned Lark, 1; American Crow, 3; Starling, 1; Snow Bunting, 100; Lapland Longspur, 2; Ipswich Sparrow, 1. Total, 19 species, about 1,020 individuals.—FRANK and ROBERT MATHEWS.

Long Beach, L. I., N. Y.—Dec. 26; 9.30 A.M. to 5 P.M. Clear to overcast; light north wind; temp. 22° at start, 32° at return. Twelve miles on foot. Horned Grebe, 30; Holbell's Grebe, 1; Black-backed Gull, 40 (chiefly across inlet on Jones Beach); Herring Gull, 500+;

Bonaparte Gull, 1; Red-breasted Merganser, 4; Black Duck, 4; Old Squaw, 7; American Scoter, 10; White-winged Scoter, 500+; Surf Scoter, 100+; Marsh Hawk, 2; Sparrow Hawk, 2; Snowy Owl, 1; Horned Lark, 75; Prairie Horned Lark, 1; American Crow, 20; Starling, 60; Meadowlark, 1; Snow Bunting, 100; Lapland Longspur, 2; Ipswich Sparrow, 2; Tree Sparrow, 6; Song Sparrow, 2. Total, 24 species, 1,471+ individuals. (Holbøll's Grebe and Lapland Longspurs added by Mr. W. R. Boulton.)—CHARLES JOHNSTON.

Long Beach, L. I., N. Y.—Dec. 21. No ice or snow; dandelions still in bloom. Morning cloudy; wind light, southwest; thick haze off shore; temp. rising from 30°; heavy clouds and northwest gale from early afternoon with quick fall of temperature to 8° by morning. Horned Grebe, 12; Red-throated Loon 2; Black-backed Gull, moderate numbers; Herring Gull, many thousands; Ring-billed Gull, 4 (adult and immature); Red-breasted Merganser, 7; Black Duck, great flocks off shore on the water and in flight; Old-Squaw, an adult male dead on the beach perfectly fresh; White-winged Scoter, large numbers, one flock of near 2,000; Surf Scoter, numerous; Marsh Hawk, a male; Sparrow Hawk, 2; Crow, common; Starling, say 100; Snow Bunting, flock of about 125; Seaside Sparrow, 1; Tree Sparrow, 465; Song Sparrow, 2. Total, 18 species. Very unusual at this season to miss Old Squaws, Horned Larks, Ipswich Sparrows and Myrtle Warblers.—E. P. BICKNELL.

Mastic, L. I., N. Y.—Dec. 26; between 7 A.M. and 2 P.M.; 5½ hours in the field. Cloudy, a powdering of new snow, almost gone by noon; open water everywhere, except ice at mouth of creek; wind northeast, dying down; temp. 32° to 40°. Mainland and marsh bordering bay. Observers together and separate. Great Black-backed Gull, 2; Herring Gull, 8; American Merganser, 5; Black Duck, 30; Golden-eye, 5; Ducks, (unidentified, probably mostly *Marila*), 250; Canada Goose, 19 (a flock migrating high); Great Blue Heron, 2; American Coot (*Fulica*), 170 (J. T. N.); Mourning Dove, 6; Marsh Hawk, 1; Red-tailed Hawk, 2; Rough-legged Hawk, 1; Sparrow Hawk, 1; Hairy Woodpecker, 6; Downy Woodpecker, 2; Flicker, 6; Blue Jay, 40; American Crow, 30; Starling, 350 (mostly 1 or 2 large flocks in pastures); Meadowlark, 8; Goldfinch, 6; Tree Sparrow, 35; Junco, 15; Song Sparrow, 6; Northern Shrike, 1; Myrtle Warbler, 50; Brown Creeper, 1; White-breasted Nuthatch, 1 (W. F. N.); Black-capped Chickadee, 25; Golden-crowned Kinglet, 12. Total, 30+ species, 1,096 individuals. No House Sparrows. The Coots were on the bay, many close to the marsh, whence they flew further out when approached. Observed as close and as long as desired, mostly in one straggling flock.—W. F. and J. T. NICHOLS.

Montauk (to Montauk Point) L. I., N. Y.—Dec. 24; daylight until dark. Sky overcast, occasionally drizzling; wind northeast, light; temp. 40°. Observers together. Holbøll's Grebe, 4; Horned Grebe, 25; Loon, 200; Red-throated Loon, 3; Iceland Gull, 1; Great Black-backed Gull, 7; Herring Gull, 1,500; Bonaparte's Gull, 1; Gannet, 1 (ad.); American Merganser, 25; Red-breasted Merganser, 75; Hooded Merganser, 1; Black Duck, 50; Scaup, 2; Golden-eye, 25; Bufflehead, 1; Old Squaw, 40; American Scoter, 50; White-winged Scoter, 750; Surf Scoter, 50; Canada Goose, 85; American Coot, 5; Marsh Hawk, 1; Sharp-shinned (?) Hawk, 1; Horned Lark, 34; Crow, 16; Starling, 2,200; Meadowlark, 5; Tree Sparrow, 9; Song Sparrow, 5; Myrtle Warbler, 25; Chickadee, 3. Total, 32 species, 5,215 individuals. Scarcity of the commoner Ducks and land-birds remarkable.—JULIUS M. JOHNSON and LUDLOW GRISCOM.

Northport, L. I., N. Y.—Dec. 27; 11 A.M. to 4 P.M. Clear; ½ in. of newly fallen snow, bays and Sound clear of ice; wind northwest, light; temp. 35°. Horned Grebe, 3; Herring Gull, 250; Ring-billed Gull, 1 (im.); Black Duck, 8; Greater Scaup Duck, over 1,000; Old Squaw, 150; American Scoter, 10; White-winged Scoter, 65; Surf Scoter, 300; Crow, 8; Starling, 11; Meadowlark, 1; Tree Sparrow, 4; Juncos, 9; Song Sparrow, 1; Myrtle Warbler, 6; Chickadee, 1. Total, 17 species, about 1800 individuals. All of the Scaup were in Northport Harbor; all of the Scoters and most of the Old Squaws were in the Sound. Land-birds were remarkably scarce though conditions for observation were excellent.—EDWARD FLEISHER.

Sands Point, L. I., N. Y.—Dec. 23, 12.30 to 1.30 P.M. and 3.20 to 5 P.M. Cloudy; 2 in. of snow; wind west, moderate; temp. about 36°. Three miles on foot. Observers together.

Loon, 1; Herring Gull, 20; American Golden-eye, 12; Great Blue Heron, 1; Red-shouldered Hawk, 1; Screech Owl, 2; Downy Woodpecker, 1; Flicker, 1; Horned Lark, 7; American Crow, 3; Meadowlark, 3; Starling, 4; Goldfinch, 7; White-throated Sparrow, 1; Tree Sparrow, 10; Slate-colored Junco, 7; Song Sparrow, 1; Brown Creeper, 1; Black-capped Chickadee, 1; Golden-crowned Kinglet, 3. Total, 20 species, about 84 individuals.—LOUISE B. LAIDLAW and LAIDLAW O. WILLIAMS.

Northvale, N. J., to Sneden's Landing, N. Y.—Dec. 26; 12.15 to 4.30 P.M. Fine; wind, north, light; ground mostly bare; temp. 25°. Herring Gull, 6; American Merganser, 3; Downy Woodpecker, 2; Marsh Hawk, 1; Red-tailed Hawk, 3; Red-shouldered Hawk, 1; Blue Jay, 6; Crow, 3; Starling, 100; Crossbill, 4; American Goldfinch, 4; Tree Sparrow, 50; Song Sparrow, 1; Myrtle Warbler, 1; Chickadee, 10; Golden-crowned Kinglet, 3; Robin, 1. Total 17 species, 199 individuals.—MR. and MRS. STANLEY V. LADOW.

Bridgeton, N. J.—Dec. 26; 8.30 A.M. to 5 P.M. Morning clear, afternoon cloudy; no snow; west winds; temp. 24° to 40°. Herring Gull, 5; Great Blue Heron, 1; Killdeer, 7; Bob-white, 2; Mourning Dove, 38; Turkey Vulture, 81; Red-tailed Hawk, 3; Red-shouldered Hawk, 1; American Sparrow Hawk, 6; Saw-whet Owl, 1; Belted Kingfisher, 1; Hairy Woodpecker, 4; Downy Woodpecker, 14; Horned Lark, 350; Crow, about 1,800; Starling, about 500; Red-winged Blackbird, 35; Meadowlark, 41; Goldfinch, 86; Pine Siskin, 80; White-throated Sparrow, 63; Tree Sparrow, 15; Field Sparrow, 76; Slate-colored Junco, 350; Song Sparrow, 87; Fox Sparrow, 5; Cardinal, 28; Myrtle Warbler, 38; Winter Wren, 13; Brown Creeper, 17; Tufted Titmouse, 210; Black-capped Chickadee, 235; Golden-crowned Kinglet, 12; Hermit Thrush, 1; Robin, 2; Bluebird, 2. Total, 36 species, 4,210 individuals.—BENNETT K. MATLACK.

Camden, N. J. (and vicinity).—Dec. 26; 9 A.M. to 4.30 P.M. Clear; wind west, light; temp. 20° to 35°. Herring Gull, 75; Black Duck, 1; Scaup Duck (Lesser), 10; Black-crowned Night Heron, 1; Mourning Dove, 1; Red-tailed Hawk, 5; Barn Owl, 3 (1 dead); Screech Owl, 1; Hairy Woodpecker, 1; Flicker, 2; Blue Jay, 1; Crow, 15; Starling, 200; Goldfinch, 2; White-throated Sparrow, 12; Tree Sparrow, 8; Junco, 30; Song Sparrow, 15; Swamp Sparrow, 4; Cardinal, 10; Myrtle Warbler, 2; Brown Creeper, 4; White-breasted Nuthatch, 5; Red-breasted Nuthatch, 1; Tufted Titmouse, 2; Chickadee, 2; Golden-crowned Kinglet, 5; Total 27 species, 418 individuals.—JULIAN K. POTTER.

Elizabeth, N. J. (between shore Newark Bay and Milburn).—Dec. 26; 7 A.M. to 5.30 P.M. Clear; light west wind; snow patches; temp. 18° at start, 28° at return. About 16 miles on foot. Herring Gull, 125 (smaller number than last year due to difference in tide; Bonaparte's Gull, 4 (spot on head seen; in same locality, 14 seen Dec. 18); Black Duck, about 25 (1 on bay; two small flocks, probably Blacks, heard after dark); Greater Scaup Duck, 3 (in hunter's bag); Ring-necked Pheasant, 1; Sharp-shinned Hawk, 1; Red-shouldered Hawk, 3; Sparrow Hawk, 1; Barn Owl, 1; Short-eared Owl, 3; Hairy Woodpecker, 1; Downy Woodpecker, 4; Red-headed Woodpecker, 1; Horned Lark, 35; Blue Jay, 3; American Crow, 13; Starling, 161; Cowbird, 5; Meadowlark, 20; Purple Finch, 8; Goldfinch, 26; Sharp-tailed Sparrow, 1; White-throated Sparrow, 7; Tree Sparrow, 95; Field Sparrow, 2; Slate-colored Junco, 68; Song Sparrow, 29; Swamp Sparrow, 3; Cardinal, 1; Northern Shrike, 2; Myrtle Warbler, 1; Winter Wren, 2; Brown Creeper, 2; White-breasted Nuthatch, 6; Tufted Titmouse, 6; Black-capped Chickadee, 22; Golden-crowned Kinglet, 7. Total, 37 species, (about) 718 individuals. More Starlings than House Sparrows. Great Blue Heron seen Dec. 11 and 18 not found Dec. 26.—CHARLES A. URNER.

Moorestown, N. J.—Dec. 26; 8 A.M. to 1 P.M. Clear; ground bare; wind north, very light; temp. 18° at start, 30° at return. Trip by automobile to promising localities, about 5 miles on foot. Observers most of the time together. Herring Gull, 18; American Merganser, 35; Turkey Vulture, 1; Marsh Hawk, 1; Red-tailed Hawk, 4; Sparrow Hawk, 1; Downy Woodpecker, 1; Flicker, 1; Blue Jay, 3; Crow, 500 (est.); Starling, 23; Goldfinch, 6; White-throated Sparrow, 5; Tree Sparrow, 14; Field Sparrow, 1; Junco, 87; Song Sparrow, 13; Cardinal, 7; Northern Shrike, 1; Brown Creeper, 5; White-breasted Nuthatch, 1; Chickadee, 16; Golden-

crowned Kinglet, 6. Total, 23 species, 750 individuals.—M. ALBERT LINTON and ANNA A. MICKLE.

Morristown, N. J.—Dec. 18; 7.15 to 10.45 A.M., 1.30 to 5 P.M.; clear in A.M., partly overcast P.M.; ground bare; wind strong to high, southwest to northwest; temp. 44° to 50° to 42°; Cutler Park, Lake Road, Speedwell Park, Evergreen Cemetery, to Monroe, and intervening territory, about ten miles, on foot, alone in A.M., with Mrs. Caskey in P.M. Red-tailed Hawk, 1; Red-shouldered Hawk, 1; Kingfisher, 1; Hairy Woodpecker, 2; Downy Woodpecker, 2; Blue Jay, 22; Crow, 73; Starling, 48; Purple Finch, 1; White-throated Sparrow, 1; Tree Sparrow, 54; Junco, 41; Song Sparrow, 12; Brown Creeper, 4; White-breasted Nuthatch, 10; Tufted Titmouse, 1; Chickadee, 14; Golden-crowned Kinglet, 21. Total, 18 species, 309 individuals.—R. C. CASKEY.

Mount Holly, N. J.—Dec. 26; 9 A.M. to 4 P.M. Clear; wind light, west; temp. 20°. Mount Holly to Smithville and return, and Mount Holly to Hainesport and return, about 7 miles on foot. Observers together. Black Duck, 25; Turkey Vulture, 10; Marsh Hawk, 1; Red-tailed Hawk, 2; Sparrow Hawk, 1; Hairy Woodpecker, 1; Downy Woodpecker, 4; Sapsucker, 1; Blue Jay, 2; Crow (roost), 15,000; Starling 30; Meadowlark, 1; Goldfinch, 4; Siskin, 8; White-throated Sparrow, 5; Tree Sparrow, 35; Junco, 50; Song Sparrow, 3; Cardinal, 6; Northern Shrike, 1; Brown Creeper, 4; White-breasted Nuthatch, 3; Red-breasted Nuthatch, 8; Tufted Titmouse, 3; Black-capped Chickadee, 12; Golden-crowned Kinglet, 15. Total, 26 species, 15,235 individuals.—MR. and MRS. NELSON D. W. PUMYEA.

Newark, N. J.—Dec. 27; 9 A.M. to 12 M. and 3.30 to 4.30 P.M. Cloudy, soon clearing; 1 in. of new snow; temp. 29° to 38°. Forest Hill to Bloomfield and return, open fields and wooded streams in A.M. Branch Brook Park in P.M. About ten miles afoot. Sharp-shinned Hawk, 1, Horned Lark, about 50; Blue Jay, 1; Starling, about 100; White-throated Sparrow, 10; Tree Sparrow, 2; Slate-colored Junco, 1; Song Sparrow, 2. Total, 8 species, about 167 individuals.—R. F. HAULENBEEK.

Ocean Grove, N. J.—Dec. 26; 8.15 A.M. to 2.40 P.M. and 3.50 to 5 P.M. Ground practically bare; light northwest wind; temp. 20°. Sections of Bradley Beach, Bradley Park, Ocean Grove, Interlaken, Belmar, and adjacent country. Holboell's Grebe, 1; Herring Gull, 50; Bonaparte's Gull, 6; American Scaup Duck (?), 2; Belted Kingfisher, 1; Downy Woodpecker, 1; Blue Jay, 2; Crow, 10; Starling, 12; Goldfinch, 1; Junco, 12; Song Sparrow, 7; Northern Shrike, 1; Myrtle Warbler, 12; Brown Creeper, 3; White-breasted Nuthatch, 1; Red-breasted Nuthatch, 1; Chickadee, 3; Golden-crowned Kinglet, 4; Robin, 3. Total, 20 species, 142 individuals. Titmice, Tree Sparrows, and a Great Blue Heron seen on Dec. 24.—MARY PIERSON ALLEN.

Plainfield, N. J. (to Ash Swamp and back).—Dec. 26; 9 A.M. to 5.30 P.M. Clear; ground largely bare; little wind. About 12 miles on foot. Ring-necked Pheasant, 2; Red-tailed Hawk, 3; Red-shouldered Hawk, 2; Saw-whet Owl, 3; Screech Owl, 2; Hairy Woodpecker, 4; Downy Woodpecker, 10; Blue Jay, 5; American Crow, 31; Starling, 15; Goldfinch, 6 (flock); White-throated Sparrow, 4 (flock); Tree Sparrow, 100; Junco, 125; Song Sparrow, 16; Swamp Sparrow, 2; Cardinal, 1; Northern Shrike, 1; Myrtle Warbler, 1; Brown Creeper, 5; White-breasted Nuthatch, 9; Tufted Titmouse, 1; Black-capped Chickadee, 11; Golden-crowned Kinglet, 3 (flock). Total, 24 species, 362 individuals.—W. DE W. MILLER.

Princeton, N. J., to Plainsboro and Rocky Hill and back (Millstone River, Carnegie Lake, and two red cedar groves).—Dec. 26; 7 A.M. to 5.20 P.M. Fine; ground mostly bare; river open; lake frozen; wind northwest, very light; temp. 17° at start, 31° at 1 P.M., 33° at return. Fourteen miles on foot, 4 (after dark) by autobus. Black Duck, 1; Red-shouldered Hawk, 2; Sparrow Hawk, 2; Long-eared Owl, 5, (flock); Saw-whet Owl, 1; Hairy Woodpecker, 3; Downy Woodpecker, 7; Flicker, 3; Horned Lark, 200; Blue Jay, 6; American Crow, 210; Fish Crow, 8; Starling, 175; Goldfinch, 6; White-throated Sparrow, 8 (flock); Tree Sparrow, 50; Field Sparrow, 3, (flock); Junco, 33; Song Sparrow, 34; Swamp Sparrow, 5; Cardinal, 7; Northern Shrike, 2; Winter Wren, 1; Brown Creeper, 2; White-breasted Nuthatch, 5; Tufted

Titmouse, 12; Black-capped Chickadee, 5 (flock); Carolina Chickadee, 2; Golden-crowned Kinglet, 5. Total, 29 species, about 800 individuals. Northern Shrikes are far more common than in any previous winter in my experience.—CHARLES H. ROGERS.

Richfield, N. J.—Dec. 25; 8 A.M. to 1 P.M. Cloudy, 1 in. of snow; wind south, brisk; temp. 28° at start, 34° at finish. Seven miles on foot. Red-shouldered Hawk, 1; Sparrow Hawk, 1; Downy Woodpecker, 1; Blue Jay, 2; Crow, 7; Starling, about 75; Goldfinch, 19; White-throated Sparrow, 2; Tree Sparrow, 6; Junco, 4; Song Sparrow, 2; Chickadee 4. Total, 12 species, 124 individuals.—LOUIS S. KOHLER.

Westfield, N. J. (to Garwood and return and then to Watchung Mountains).—Dec. 26; 9.15 A.M. to 3.30 P.M. Bright sun; slight remains of snow on ground; no wind; temp. 33° at start and 37° at return. About 7 miles on foot. Screech Owl, 1 (found asleep in hole); Ring-necked Pheasant, 2; Downy Woodpecker, 1; Blue Jay, 9; Crow, 10; Starling, 12; Goldfinch, 2; Tree Sparrow, 6; Slate-colored Junco, 2; Song Sparrow, 7; Northern Shrike, 1; Black-capped Chickadee, 4; Golden-crowned Kinglet, 2; Robin, 6. Total, 14 species, 65 individuals. Also English Sparrow, 3.—FRANK ALLATT.

Chestnut-Hill and Whitemarsh, Pa.—Dec. 26; 12 M. to 4 P.M. Partly cloudy; ground uncovered; wind north, light; temp. 25°. About five miles on foot. Hawk (not identified), 4; Hairy Woodpecker, 1; Downy Woodpecker, 5; Flicker, 4; Crow, 10; Starling, about 40; White-throated Sparrow, 2; Tree Sparrow, about 40; Junco, about 30; Song Sparrow, 4; Cardinal, 4; Northern Shrike, 1; Brown Creeper, 1; White-breasted Nuthatch, 3; Tufted Titmouse, 2. Total, 15 species, about 151 individuals.—GEORGE LEAR.

Emsworth, Pa.—Dec. 26; 8.30 A.M. to 12.30 P.M., 1.30 to 5.45 P.M. Cloudy; ground bare and frozen; wind west, light; temp. 20°. Twenty-six miles on foot. Observers together. Ruffed Grouse, 2; Screech Owl (now spending ninth winter in bird-box), 1; Hairy Woodpecker, 4; Downy Woodpecker, 7; Blue Jay, 3; Crow 8 (flock); English Starling, 14 (flock); Goldfinch, 6; Tree Sparrow 50 (flock); Junco, 9; Song Sparrow, 10; Cardinal 20; Towhee, (male) 1; Winter Wren, 1; Brown Creeper, 3; White-breasted Nuthatch, 6; Black-capped Chickadee, 3; Tufted Titmouse, 4; Bluebird, 4. Total, 19 species, 156 individuals. The Starlings were the first we had ever seen in western Pennsylvania. They were feeding at a garbage dump near the Lowrie Run iron bridge at the hog-farm. They were observed at 60 feet. McConnell had previously made their acquaintance around Philadelphia last June.—THOMAS L. MCCONNELL, R. H. SPENCER, and LOUIS MCCONNELL.

Essington, Pa.—Dec. 25; 10 A.M. to 2.30 P.M. Cloudy; no snow; scarcely any wind; a few degrees above freezing. About 8 miles through Tinicum Woods, through meadows, along Hook Creek and along the tidal flats along Darby Creek. Herring Gull, 3; Red-breasted Merganser, 4; Mallard Duck, 12; Black Duck, 24; Red-headed Duck, 11; Scaup Duck, 2; American Golden-eye Duck, 1; Marsh Hawk, 4; Cooper's Hawk, 2; Red-tailed Hawk, 7; Red-shouldered Hawk, 1; Broad-winged (?) Hawk, 2; Sparrow Hawk, 3; Flicker, 1; Horned Lark, 30; Crow, 1,000; Starling, 400; Red-winged Blackbird, 10; Meadowlark, 1; Goldfinch, 18; Savannah Sparrow, 1; White-throated Sparrow, 15; Tree Sparrow, 45; Junco, 18; Song Sparrow, 55; Swamp Sparrow, 2; Cardinal, 2. Total, 27 species, 1,674 individuals. Kinglet, Chickadee, Nuthatch, Titmouse, and Woodpeckers all missing, and though seen during December are very scarce in this vicinity.—V. A. DEBES.

Lititz, Pa. (Hammer Creek Valley, northern Lancaster County).—Dec. 26; 8 A.M. to 5 P.M. Clear; ground bare; wind northwest, light; temp. 20° at start, 26° at return. Total route about 35 miles. Bob-white, 56 (4 coveys); Ruffed Grouse, 1; Ring-necked Pheasant, 2; Mourning Dove, 1; Turkey Vulture, 16; Red-tailed Hawk, 2; Red-shouldered Hawk, 3; Sparrow Hawk, 4; Screech Owl, 1; Downy Woodpecker, 10; Flicker, 3; Crow, about 3,000; Starling, 170; Goldfinch, 9; Tree Sparrow, 215; Junco, 90; Song Sparrow, 15; Cardinal, 2; Shrike (Loggerhead or Migrant), (singing) 3; Winter Wren, 1; White-breasted Nuthatch, 2; Chickadee, 22. Total, 22 species, 883 individuals (excluding Crows). Dec. 20, Great Blue Heron.—HERBERT H. BECK, ABRAHAM BECK MILLER, J. HENRY SHAY, and bird dog.

Muncy, Pa.—Dec. 26; 8.15 A.M. to 1 P.M. Bright sun at start, cloudy and snow after 10.30; light northwest wind; temp. at start 12°, at return 22°. Eleven miles on foot along small streams and Susquehanna River. Merganser, 1; Hawk (Red-Shouldered or Red-Tailed), 1; Sparrow Hawk, 1; Downy Woodpecker, 8; Crow, 31; Field Sparrow, 20; Slate-colored Junco, 30+; Cardinal (male and female), 2; Brown Creeper, 2; White-breasted Nuthatch, 5; Tufted Titmouse, 14; Black-capped Chickadee, 40+. Total, 12 species, 155+ individuals.—HARRY E. MILLS.

Oakmont to Eagle (Delaware Co.) Pa., via Darby Creek and surrounding country.—Dec. 26; 10.30 A.M. to 4 P.M. Temp. 25°; ten miles on foot. Observers together all the time. Marsh Hawk, 1; Red-tailed Hawk, 1; Downy Woodpecker, 4; Crow, 25+; Starling, 16; Goldfinch, 2; White-throated Sparrow, 6; Tree Sparrow, 50+; Field Sparrow, 8; Junco, 100+; Song Sparrow, 6; Cardinal, 5; Northern Shrike, 1; Brown Creeper, 1. Total, 14 species, 219 individuals.—WM. H. YODER, JR., and HENRY GAEDE.

Reading, Pa.—Dec. 18; 9.30 A.M. to 3.30 P.M. Clear; ground bare; brisk southwest wind; temp. 42° at noon. Observers together. Sharp-shinned Hawk, 1; Red-tailed Hawk, 1; Sparrow Hawk, 1; Quail, 4; Downy Woodpecker, 4; Crow, 25; Starling, 30; Purple Finch, 18; Goldfinch, 4; Tree Sparrow, 33; Junco, 19; Song Sparrow, 6; Cardinal, 2; White-breasted Nuthatch, 5; Golden-crowned Kinglet, 1. Total, 15 species, 154 individuals.—MR. and MRS. G. HENRY MENGEL.

Sewickley, Pa. (Clinton Pond to Sewickley).—Dec. 26; 8 A.M. to 1 P.M. Cloudy; light snow; light south wind; temp. 27° at start 32° at return. Ten miles on foot. Observers together. Bob-white, 20; Ring-necked Pheasant, 1; Sparrow Hawk, 2; Hairy Woodpecker, 5; Downy Woodpecker, 8; Goldfinch, 50; Tree Sparrow, 135; Junco, 30; Song Sparrow, 15; Cardinal, 8; White-breasted Nuthatch, 8; Tufted Titmouse, 9; Chickadee, 33. Total, 13 species, 334 individuals.—BAYARD H. CHRISTY and FRANK A. HEGNER.

Springs, Pa.—Dec. 27; 8 A.M. to 4.30 P.M. Clear at start, partly cloudy later; ground bare; wind south, light; temp. 25° to 30°. Red-tailed Hawk, 1; Hairy Woodpecker, 1; Downy Woodpecker, 5; Crow, 1; Tree Sparrow, 62; Junco, 14; Song Sparrow, 2; Cardinal, 2; Brown Creeper, 1; White-breasted Nuthatch, 7; Tufted Titmouse, 4; Black-capped Chickadee, 13; Golden-crowned Kinglet, 1. Total, 14 species, 114 individuals.—ANSEL B. MILLER.

Telford, Pa.—Dec. 25; 7.50 A.M. to 3.10 P.M. Cloudy; ground bare in open, crusty snow and ice in woods; wind north; temp. 29° at start, 32° at return. Eighteen miles on foot. Mallard, 2; Quail, 16 (2 coveys); Mourning Dove, 1; Hairy Woodpecker, 3; Downy Woodpecker, 13; Blue Jay, 4; Crow, 36; Starling, 59; Goldfinch, 24 (1 flock); Tree Sparrow, 20; Junco, 84; Song Sparrow, 20 (1 in song); Winter Wren, 1; Brown Creeper, 1; White-breasted Nuthatch, 6; Black-capped Chickadee, 43; Golden-crowned Kinglet, 3. Total, 17 species, 336 individuals. Both Winter Wren and Mallards were observed at close range and studied at leisure.—CLAUDE A. BUTTERWICK.

Ulster, Bradford Co., Pa.—Dec. 27; 9 A.M., to 12 M., 1 to 4 P.M. Cloudy; light snow; light south wind in A.M., brisk northwest wind in P.M., temp. 27° at start, 30° at return. About 12 miles on foot. Observers worked in pairs in A.M.; together in P.M. Starling, 15; Tree Sparrow, 130; Black-capped Chickadee, 27; White-breasted Nuthatch, 4; Downy Woodpecker, 4; American Crow, 3; Junco, 2; Ruffed Grouse, 4; Blue Jay, 2; Marsh Hawk, 1; Song Sparrow, 1; Brown Creeper, 1; Sharp-shinned Hawk, 1; Northern Shrike, 1; Evening Grosbeak (female), 1. Total, 15 species, 197 individuals. Dec. 1 a pair of Cardinals were seen and fully identified.—MRS. F. E. MATHER, MRS. O. J. VAN WINKLE, MISS ANNA BROOKS, and MISS MARTHA McMORRAN.

Williamsport, Pa.—Dec. 27; 9 A.M. to 4.30 P.M. Cloudy; 1 inch of snow; temp. 28°. Distance covered, 12 miles, walking together. American Merganser, 3; Duck (sp. ?), 1; Ruffed Grouse, 1; Sparrow Hawk, 1; Downy Woodpecker, 9; Flicker, 1; Crow, 21; Meadowlark, 3; Evening Grosbeak, 2 (32 were recently seen); White-winged Crossbill, 4; Song Sparrow, 1; Tree Sparrow, 78; Junco, 26; Cardinal, 8; Shrike, 2; Winter Wren, 1; Brown Creeper, 1;

White-breasted Nuthatch, 13; Tufted Titmouse, 6; Golden-crowned Kinglet, 9; Black-capped Chickadee, 25; Robin, 1. Total, 22 species, 217 individuals.—JOHN P. and CHAS. V. P. YOUNG.

Williamsport, Pa.—Dec. 23; 8.30 A.M. to 4.10 P.M. Overcast, followed by light rain and sleet; wind light, east and northeast; ground slightly covered with snow; temp. 23° at start, 32° at return. Ten to 11 miles on foot, observers working together. Canvasback Duck, 6; Great Blue Heron, 1; Red-shouldered Hawk, 1; Hairy Woodpecker, 2; Downy Woodpecker, 6; Flicker, 1; American Crow, 15; Tree Sparrow, 75; Slate-colored Junco, 36; Song Sparrow, 3; Northern Shrike, 1; Brown Creeper, 4; White-breasted Nuthatch, 5; Red-breasted Nuthatch, 2; Chickadee, 28. Also 10 unidentified Ducks which flew over our heads. Total, 15; species, 186 individuals. On Dec. 6 two science teachers from our high school watched 25 Evening Grosbeaks feed on seeds from a box-elder tree. The Shrike has been a daily visitor for over two weeks in this locality. It is the second time that the Great Blue Heron has been seen this month. Others seen within the last two weeks are: Blue Jay, Winter Wren, Marsh Hawk White-throated Sparrow, Ruffed Grouse, Bob-white, Ruddy Duck, Black Duck, and Hooded Merganser.—J. B. RISHEL, ROBERT ALLEN and JOHN ALLEN.

Baltimore, Md.—Dec. 24; 9.25 A.M. to 12.15 P.M. Overcast; ground bare and wet; practically no breeze; temp. 40° at 8 A.M. and 47° at noon. Two and one half miles on foot. Through grounds of Johns Hopkins University and Guilford, near northern boundary of city. Observers together. Hairy Woodpecker, 2; Downy Woodpecker, 1; Red-headed Woodpecker, 1; Blue Jay, 1; Crow, 15; Starling, 206; Meadowlark, 1; White-throated Sparrow, 1; Junco, 55; Song Sparrow, 3; Cardinal, 5; Mockingbird, 3; Brown Creeper, 2; White-breasted Nuthatch, 1; Red-breasted Nuthatch, 2; Tufted Titmouse, 4. Total, 16 species, 303 individuals. Also English Sparrow, 38.—INEZ COLDWELL, H. T. FOLGER, JOSEPH LEVY, and R. P. COWLES.

Chevy Chase, Md.—Dec. 26; 10 A.M. to 2 P.M. Sky partly overcast; ground bare; still; temp. 25° at start, 32° at return. Section northeast of the village to Rock Creek. Five miles on foot. Observers together. Bob-white 2; Turkey Buzzard, 22; Red-shouldered Hawk, 1; Screech Owl, 1; Downy Woodpecker, 15; Blue-Jay, 9; American Crow, 300 (est.); Fish Crow, 25; Purple Finch, 2; American Goldfinch, 22; Song Sparrow, 4; White-throated Sparrow, 4; Tree Sparrow, 5; Slate-colored Junco, 130; Cardinal, 18; Mockingbird, 2; Carolina Wren, 2; Brown Creeper, 1; White-breasted Nuthatch, 7; Tufted Titmouse, 11; Carolina Chickadee, 2; Bluebird, 4. Total, 22 species, about 579 individuals. Also English Sparrow, 275. Also, on Dec. 25 were seen in Chevy Chase village a Robin and a Flicker.—HON. EDMUND PLATT and S. W. MELLOTT, M. D.

Fairhaven, Md.—Dec. 20; 9 A.M. to 4.30 P.M. Clear; ground bare; wind southeast, light; temp. about 40°. By automobile 35 miles from Washington, D. C., to Fairhaven, 4 miles on foot near shore of Chesapeake Bay, and return by automobile. Horned Grebe, 2; Herring Gull, 3; Ring-billed Gull, 24; Bonaparte's Gull, 1; Old Squaw, 10; White-winged Scoter, 2; Surf Scoter, 1; Turkey Vulture, 28; Sharp-shinned Hawk, 1; Belted Kingfisher, 1; Downy Woodpecker, 3; Red-bellied Woodpecker, 2; Flicker, 2; Horned Lark, 10; Blue Jay, 1; Crow, 82; Fish Crow, 27; Starling, 3; Red-winged Blackbird, 25; Meadowlark, 48; Goldfinch, 5; White-throated Sparrow, 5; Tree Sparrow, 9; Junco, 7; Song Sparrow, 6; Cardinal, 10; Migrant Shrike, 1; Mockingbird, 5; Carolina Wren, 1; Brown Creeper, 2; White-breasted Nuthatch, 2; Tufted Titmouse, 4; Golden-crowned Kinglet, 3; Ruby-crowned Kinglet, 1; Bluebird, 8. Total, 35 species, 345 individuals.—MR. and MRS. JOSEPH KITTREDGE, JR.

Magnolia, Md.—Dec. 26; 11 A.M. to 4 P.M. Cloudy; ground bare; wind northwest, light; temp. 19° at start, 21° at return. About 12 miles on foot. Herring Gull, 3; Great Blue Heron, 2; Bob-white, 3; Marsh Hawk, 2; Downy Woodpecker, 2; Flicker, 1; Blue Jay, 2; Crow, 3; Goldfinch, 11; White-throated Sparrow, 11; Junco, 34; Song Sparrow, 11; Swamp Sparrow, 3; Cardinal, 1; Carolina Wren, 4; Brown Creeper, 5; Tufted Titmouse, 6; Chickadee, 10; Golden-crowned Kinglet, 8; Robin, 2; White-breasted Nuthatch, 12; Red-breasted Nuthatch, 1. Total, 22 species, 137 individuals.—RAYMOND W. MAINSTER.

Washington, D. C. (Woodlawn, Dogue Creek, Mt. Vernon and Snowden's, Va.).—Dec. 24; 9.30 A.M. to 5.30 P.M. Overcast all day, occasional light rain; temp. 40° to 50°. Observers together throughout trip. Pied-billed Grebe, 2; Herring Gull, 92; Ring-billed Gull, 2; American Merganser, 9; Hooded Merganser, 1; Mallard, 3; Black Duck, 212; Canvasback, 50; Scaup Duck, 5,000; Golden-eye, 6; Great Blue Heron, 2; Killdeer, 15; Bob-white, 9; Mourning Dove, 15; Turkey Vulture, 17; Marsh Hawk, 1; Red-shouldered Hawk, 1; Bald Eagle, 1; Hairy Woodpecker, 2; Downy Woodpecker, 5; Red-bellied Woodpecker, 1; Flicker, 3; Blue Jay, 10; Crow, 13; Starling, 34; Meadowlark, 18; Rusty Blackbird, 7; Goldfinch, 3; White-throated Sparrow, 3; Tree Sparrow, 20; Field Sparrow, 2; Junco, 48; Song Sparrow, 4; Cardinal, 4; Migrant Shrike, 3; Myrtle Warbler, 4; Mockingbird, 7; Carolina Wren, 3; Winter Wren, 1; White-breasted Nuthatch, 4; Red-breasted Nuthatch, 3; Tufted Titmouse, 10; Carolina Chickadee, 9; Golden-crowned Kinglet, 3; Hermit Thrush, 1; Bluebird, 8. Total, 47 species, about 5,685 individuals. Also English Sparrow, 22.—EDWARD A. PREBLE, ALEXANDER WETMORE and W. L. MCATEE.

Berryville, Va.—Dec. 24; 9 A.M. to 12.30 P.M. Cloudy and a little rain about 12 o'clock; ground bare; no wind; temp. 36°. Killdeer, 1; Mourning Dove, 24; Turkey Vulture, 4; Cooper's Hawk, 1; Red-tailed Hawk, 1; Sparrow Hawk, 1; Screech Owl, 1; Downy Woodpecker, 6; Horned Lark, 59; Crow, 132; Starling, 185; Goldfinch, 1; Tree Sparrow, 205; Slate-colored Junco, 17; Song Sparrow, 1; Cardinal, 13; White-breasted Nuthatch, 5; Chickadee, 5; Tufted Titmouse, 2. Total, 19 species, 664 individuals.—JOSEPH P. JONES.

Lawrenceville, Va. (and vicinity).—Dec. 26; 8.45 A.M. to 3.30 P.M. No snow; clear at start, clouding later; wind northwest, light; temp. at start, 30°, at return, 36°. Route included forest, field, pasture and the bank of Meherrin River; about 15 miles on foot. Observers together. Mourning Dove, 32; Turkey Buzzard, 9; Black Vulture, 1; Red-tailed Hawk, 1; Red-shouldered Hawk, 1; Sparrow Hawk, 1; Great Horned Owl, 1; Hairy Woodpecker, 6; Downy Woodpecker, 8; Yellow-bellied Sapsucker, 1; Pileated Woodpecker, 1; Flicker, 3; Phoebe, 1; Blue Jay, 4; Crow, 34; Meadowlark, 3; American Goldfinch, 15; Grasshopper Sparrow (?), 2; White-throated Sparrow, 26; Field Sparrow, 24; Slate-colored Junco, 210; Song Sparrow, 25; Fox Sparrow, 1; Cardinal, 18; Myrtle Warbler, 1; Mockingbird, 2; Carolina Wren, 16; Brown Creeper, 1; White-breasted Nuthatch, 3; Tufted Titmouse, 12; Chickadee, 5; Golden-crowned Kinglet, 11; Hermit Thrush, 4; Bluebird, 12. Total, 34 species, 496 individuals. Many Wild Turkey tracks were seen in the sand on the river bank. We failed to see some common birds, notably Quail, Killdeer, Towhee and Purple Finch.—JOHN B. and CHAS. D. LEWIS.

Pulaski, Va.—Dec. 26; 1.30 P.M. to 5.10 P.M. Clear; ground bare; light west wind; temp. 38° at start, 32° at return. Five miles on foot. Quail, 14; Mourning Dove, 50; Turkey Vulture, 40; Black Vulture, 2; Cooper Hawk, 1; Meadowlark, 22; Savannah Sparrow, 1; Slate-colored Junco, 60; Song Sparrow, 6; Cardinal, 6; Mockingbird, 1 (killed by hunter); Carolina Wren, 1; White-breasted Nuthatch, 2; Tufted Titmouse, 6; Black-capped Chickadee, 8; Bluebird, 2. Total, 16 species, 222 individuals.—O. C. BREWER.

Parkersburg, W. Va. (along Briscoe Run and Ohio River).—Dec. 26; 12.30 to 5.30 P.M. Cloudy; ground bare; light southwest wind; temp. 36°. Five miles on foot. Observers together. Herring Gull, 1; Duck, 3 (species not determined); Hairy Woodpecker, 1; Downy Woodpecker, 8; Crow, 150; Tree Sparrow, 15; Song Sparrow, 21; Towhee, 2; Cardinal, 22; Carolina Wren, 5; Bewick Wren, 4; White-breasted Nuthatch, 5; Tufted Titmouse, 25; Chickadee, 43. Total, 14 species, 305 individuals.—MRS. W. W. GEORGE, BERTHA E. WHITE, LAURA MOORE, and WALTER DONAGHIO.

Aiken, S. C.—Dec. 15; sunrise to 2.30 P.M. Clear; calm; temp. at return 70°. Small, swampy pond; auto 12 miles, then 3 miles walking along wooded creek and adjoining fields. Observers together. Pied-billed Grebe, 7; Mallard, 4; Wood Duck, 6; Great Blue Heron, 2; Bob-white, 25 (2 coveys); Mourning Dove, 9; Turkey Buzzard, 50; Black Vulture (identified), 9; Sparrow Hawk, 3; Sharp-shinned Hawk, 1; Cooper's Hawk, 1; Red-tailed Hawk, 1; King-

fisher, 2; Southern Hairy Woodpecker, 5; Southern Downy Woodpecker, 4; Red-cockaded Woodpecker, 1; Sapsucker, 2; Pileated Woodpecker, 1; Red-headed Woodpecker, 6; Red-bellied Woodpecker, 4; Flicker, 27; Phoebe, 2; Blue Jay, 22; Crow, 24; Red-winged Blackbird, 70; Meadowlark, 14; Goldfinch, 20; Vesper Sparrow, 70; Savannah Sparrow, 2; White-throated Sparrow, about 500; Chipping Sparrow, 95; Field Sparrow, 65; Junco, about 300; Song Sparrow, 185; Swamp Sparrow, 92; Fox Sparrow, 25; Towhee, 30 (both Red-eyed and White-eyed identified); Cardinal, 19; Cedar-bird, 25; Loggerhead Shrike, 9; Myrtle Warbler, 45; Pine Warbler, 12; Maryland Yellow-throat (*G. l. ignota?*), 1; American Pipit, 20; Mockingbird, 15; Brown Thrasher, 10; Carolina Wren, 10; Winter Wren, 1; Brown Creeper, 1; White-breasted Nuthatch, 1; Red-breasted Nuthatch, 3; Brown-headed Nuthatch, 20; Titmouse, 9; Carolina Chickadee, 12; Golden-crowned Kinglet, 43; Ruby-crowned Kinglet, 48; Hermit Thrush, 12; Robin, 5; Bluebird, 30. Total, 58 species, about 2079 individuals.—MARION J. PELLEW and LOUISE P. FORD.

Spartanburg, S. C.—Dec. 26; 7:30 A.M. to 1 P.M. Cloudy; wind northeast; temp. 40°. Marsh Hawk, 1; Sparrow Hawk, 1; Southern Downy Woodpecker, 1; Red-headed Woodpecker, 2; Flicker, 5; Phoebe, 2; Blue Jay, 10; American Crow, 5; Meadowlark, 6; Purple Finch, 5; American Goldfinch, 4; White-throated Sparrow, 60; Field Sparrow, 11; Slate-colored Junco, 43; Song Sparrow, 12; Towhee, 8; Cardinal, 10; Cedar Waxwing, 3; Myrtle Warbler, 6; Mockingbird, 3; Carolina Wren, 6; Brown Creeper, 2; Red-breasted Nuthatch, 5; Tufted Titmouse, 4; Carolina Chickadee, 6; Golden-crowned Kinglet, 35; Ruby-crowned Kinglet, 5; Hermit Thrush, 11; Robin, 2; Bluebird, 45. Total, 30 species, 329 individuals.—GABRIEL CANNON.

Summerton, S. C.—Dec. 25. Cloudy; several light showers; temp. 60°. Carolina Dove, 3; Turkey Vulture, 1; Black Vulture, 2; Red-shouldered Hawk, 1; Sparrow Hawk, 2; Red-bellied Woodpecker, 2; Flicker, 7; Phoebe, 3; Blue Jay, 10; Crow, 5; Goldfinch, 5; Vesper Sparrow, 20; Savanna Sparrow, 6; White-throated Sparrow, 22; Chipping Sparrow, 2; Field Sparrow, 6; Junco, 10; Song Sparrow, 15; Red-eyed Towhee, 4; Cardinal, 3; Myrtle Warbler, 3; Pine Warbler, 3; Pipit, 50; Mockingbird, 4; Brown Thrasher, 1; Carolina Wren, 5; House Wren, 1; Winter Wren, 1; Tufted Titmouse, 2; Ruby-crowned Kinglet, 6; Hermit Thrush, 6; Robin, 2; Bluebird, 5. Total, 33 species, 218 individuals.—E. S. DINGLE.

Atlanta, Ga. (College Park, Old Speedway, Lakewood, Emory University, Piedmont Park, and Collier's Woods).—Dec. 26, 9 A.M. to 4 P.M. Cloudy; light southeast wind; temp. 40° at start, 50° at return. Observers in two parties. Lesser Scaup Duck, 3; Mourning Dove, 2; Turkey Vulture, 4; Sharp-shinned Hawk, 1; Red-tailed Hawk, 1; Red-shouldered (?) Hawk, 1; Sparrow Hawk, 2; Southern Hairy Woodpecker, 1; Southern Downy Woodpecker, 6; Flicker, 7; Phoebe, 3; Blue Jay, 30; Crow, 3; Red-winged Blackbird, 125; Meadowlark, 1; Purple and Bronzed Grackles, 12 (both occur here; unable to distinguish); Purple Finch, 3; Goldfinch, 70; Vesper Sparrow, 2; Savannah Sparrow, 1; White-throated Sparrow, 75; Chipping Sparrow, 5; Field Sparrow, 250; Slate-colored Junco, 250; Song Sparrow, 35; Swamp Sparrow, 3; Fox Sparrow, 2; Towhee, 35; Cardinal, 14; Pine Warbler, 2; Mockingbird, 4; Brown Thrasher, 3; Carolina Wren, 12; Winter Wren, 1; Brown Creeper, 5; White-breasted Nuthatch, 7; Brown-headed Nuthatch, 2; Tufted Titmouse, 15; Carolina Chickadee, 12; Golden-crowned Kinglet, 30; Ruby-crowned Kinglet, 2; Hermit Thrush, 18; Bluebird, 45. Total, 43 species, about 1,105 individuals. In a loose flock of Field Sparrows a bird with head, throat, upper back, and shoulders pure white was carefully observed at close range, the size, shape, and company leading to the conclusion that it was an albino Field Sparrow.—DR. and MRS. GEO. R. MAYFIELD, HENDREE NEAL, and WM. H. LA PRADE, JR.

Macon, Ga. (along Ocmulgee River between Pumping Station and South Macon).—Dec. 26; 10 A.M. to 5 P.M. Generally cloudy, with interval of sunshine at mid-day; ground bare; north wind, light; temp. 40° at start, 52° in mid-afternoon, about 45° at return. About 6 miles on foot; observers in two parties about half the time. Canada Goose, 18 (flying South); Killdeer, 16; Mourning Dove, 1; Turkey Vulture, 5; Sparrow Hawk, 1; Downy Woodpecker,

2; Red-bellied Woodpecker, 1; Flicker, 6; Blue Jay, 5; American Crow, 2; Meadowlark, 75; Goldfinch, 3; Vesper Sparrow, 40; White-throated Sparrow, 60; Field Sparrow, 15; Junco, 12; Song Sparrow, 12; Fox Sparrow, 10; Towhee, 8; Cardinal, 5; Loggerhead Shrike, 2; Myrtle Warbler, 15; Palm Warbler, 3; Mockingbird, 6; Carolina Wren, 16; Tufted Titmouse, 2; Carolina Chickadee, 1; Golden-crowned Kinglet, 6; Ruby-crowned Kinglet, 30; Hermit Thrush, 2; Robin, 20. Total, 31 species, 400 individuals.—R. G. VON TOBEL, FRANCIS and RALPH STUBBS, and HENRY FOX.

East Goose Creek, Wakulla Co., Fla.—Dec. 30; daylight until dark. Fair; wind north, moderate; temp. 40° to 60°. Observers dividing territory between them: L.G., the islands, bays and creeks; M. S. C., the prairies, hammocks, woods, and fields inland; total distance covered about 9 miles. Horned Grebe, 25; Pied-billed Grebe, 3; Loon, 2; Herring Gull, 250; Ring-billed Gull, 15; Laughing Gull, 25; Forster's Tern, 9 (specimen collected); Florida Cormorant, 7; Brown Pelican, 3; Red-breasted Merganser, 20; Hooded Merganser, 25; Mallard, 150; Black Duck, 2,500; Gadwall, 5; Baldpate, 2; Shoveller, 2; Pintail, 1,000; Wood Duck, 7; Scaup, 15; Lesser Scaup, 150 (both species seen together at close range); Ring-necked Duck, 5; Bufflehead, 2; Canada Goose, 300; Ward's Heron, 500; Louisiana Heron, 75; Little Blue Heron, 200; King Rail, 1; Florida Clapper Rail, 4; Virginia Rail, 3; Wilson's Snipe, 3; Least Sandpiper, 6; Red-backed Sandpiper, 500; Semipalmated or Western Sandpiper, 50; Greater Yellow-legs, 11; Western Willet, 1; Black-bellied Plover, 25; Killdeer, 20; Semipalmated Plover, 1; Turnstone, 25; Florida Bob-white, 1; Mourning Dove, 18; Turkey Vulture, 20; Black Vulture, 13; Marsh Hawk, 5; Red-tailed Hawk, 1; Florida Red-shouldered Hawk, 1; Bald Eagle, 1; Sparrow Hawk, 4; Florida Barred Owl, 3; Great Horned Owl, 1; Kingfisher, 6; Southern Hairy Woodpecker, 4; Southern Downy Woodpecker, 10; Red-cockaded Woodpecker, 3; Yellow-bellied Sapsucker, 10; Pileated Woodpecker, 6; Red-bellied Woodpecker, 9; Flicker, 15; Phoebe, 15; Florida Blue Jay, 10; Florida Crow, 15; Fish Crow, 100; Florida Red-wing, 100; Southern Meadowlark, 6; Florida Grackle, 48; Boat-tailed Grackle, 20; Goldfinch, 20; Vesper Sparrow, 5; Savannah Sparrow, 2; Leconte's Sparrow, 1 (studied at leisure at 20 feet—L. G.); Nelson's Sharp-tailed Sparrow, 2; Seaside Sparrow (*juncicola*—L. G.), 5; White-throated Sparrow, 6; Song Sparrow, 14; Swamp Sparrow, 20; Towhee, 2; White-eyed Towhee, 6; Cardinal, 6; Tree Swallow, 150; Loggerhead Shrike, 4; Solitary Vireo, 3; Black-and-White Warbler, 1; Orange-crowned Warbler, 1; Myrtle Warbler, 100; Yellow-throated Warbler, 2; Pine Warbler, 15; Palm Warbler, 50; Yellow Palm Warbler, 4; Yellow-throat (subsp.?) 12; Pipit, 9; Mockingbird, 20; Catbird, 1; Brown Thrasher, 3; Carolina Wren, 3; House Wren, 20; Short-billed Marsh Wren, 6; Prairie Marsh Wren, 3; Marian's Marsh Wren, 1 (both races seen together within 10 feet—L. G.); Brown Creeper, 1; Florida White-breasted Nuthatch, 2; Brown-headed Nuthatch, 30; Tufted Titmouse, 18; Carolina Chickadee, 20; Golden-crowned Kinglet, 4; Ruby-crowned Kinglet, 50; Blue-gray Gnatcatcher, 2; Hermit Thrush, 12; Robin, 60; Bluebird, 25. Total, 109 species; 7,103 individuals. With the possible exception of Leconte's Sparrow, not a single noteworthy or unusual species in this list; 160 winter residents already recorded for this region; the list of John Williams in the Wilson Bulletin taken as the standard for subspecies. Seen Dec. 28 and 29, Cooper's Hawk; Florida Screech Owl; Pine Woods Sparrow.—LUDLOW GRISCOM and MAUNSELL S. CROSBY.

New Smyrna, Fla.—Dec. 23; 9 A.M. to 4 P.M. Clear and warm; temp. 60° at start, 70° on return. Route, 4 miles along the river and salt marsh, and back through the oak and palmetto jungle. Herring Gull, 2; Laughing Gull, 20; Red-breasted Merganser, 2; Lesser Scaup Duck, 45; Wood Ibis, 1; Ward's Heron, 3; Snowy Heron, 1; Louisiana Heron, 6; Little Blue Heron, 8; Green Heron, 2; Sanderling, 11; Spotted Sandpiper, 5; Killdeer Plover, 2; Wilson's Plover, 1; Black Vulture, 5; Red-shouldered Hawk, 1; Pigeon Hawk, 1; Sparrow Hawk, 1; Kingfisher, 7; Downy Woodpecker, 3; Red-headed Woodpecker, 2; Red-bellied Woodpecker, 3; Flicker, 3; Phoebe, 6; Blue Jay, 9; Crow, 25; Meadowlark, 5; Florida Grackle, 11; Boat-tailed Grackle, 2; Chewink, 4; Cardinal, 5; Yellow-throated Vireo [?], 1; Black and White Warbler, 1; Myrtle Warbler, 7; Palm Warbler, 12; Mockingbird, 16; House Wren, 3; Tufted

Titmouse, 4; Hermit Thrush, 2; Robin, 200; Bluebird, 2. Total, 42 species, 351 individuals.—S. R. INGERSOLL.

Plant City, Fla.—Dec. 25; 7 A.M. to 5.30 P.M. Heavy mist in the morning, gradually clearing. Bright sunshine from 9.30 A.M. till 4.30 P.M., after which time sky was slightly overcast. Little wind; temp. 60° in morning, 78° at noon, 73° in evening. From 2 miles north of Plant City to Crystal Springs, 2 miles northwest of town of Crystal Springs, Fla., and return. First half of trip out on foot; remainder of trip and return by automobile. Region within half mile of each terminus of long trip was investigated on foot. Observers together. Total distance, 12 miles and return. White Ibis, 2; Wood Ibis, 1; American Bittern, 1; Ward Heron, 3; American Egret, 1; Snowy Heron, 1; Louisiana Heron, 1; Little Blue Heron, 100; American Woodcock, 1; Killdeer, 13; Florida Bob-white, 10; Mourning Dove, 20; Ground Dove, 10; Black Vulture, 50; Marsh Hawk, 1; Red-shouldered Hawk, 5; Sparrow Hawk, 1; Barn Owl, 1 (found dead in road; recently killed); Florida Screech Owl, 1; Belted Kingfisher, 4; Red-cockaded Woodpecker, 2; Pileated Woodpecker, 2; Red-headed Woodpecker, 1; Flicker, 2; Phoebe, 11; Florida Blue Jay, 16; Fish Crow, 8; Florida Red-winged Blackbird, 50; Florida Meadowlark, 29; Boat-tailed Grackle, 3; Pine-woods Sparrow, 1; Towhee, 10 (part of these were probably White-eyed Towhees, proportion uncertain); Florida Cardinal, 6; Tree Swallow, 20; Loggerhead Shrike, 16; Black-and-white Warbler, 1; Myrtle Warbler, 75; Pine Warbler, 3; Palm Warbler, 40; Yellow Palm Warbler, 1; Florida Yellowthroat, 7; Mockingbird, 39; Florida Wren, 1; House Wren, 3; Carolina Chickadee, 2; Ruby-crowned Kinglet, 4; Blue-grey Gnatcatcher, 12; Hermit Thrush, 1; American Robin, 1; Bluebird, 25. Total, 50 species, about 619 individuals. LEWIS H. MOUNTS, (Ballard Normal School, Macon, Ga.) and EUGENE MOUNTS (Plant City, Fla.).

Tampa, Fla.—Dec. 25; 2.30 to 5.30 P.M. Bright and clear; temp. 70° to 78°. Ride along Tampa Bay to Gadsden Point by auto. About 15 miles round trip. Laughing Gull, 6; Herring Gull, 15; Florida Cormorant, 8; Brown Pelican, 2; Red-breasted Merganser, 1; Lesser Scaup Duck, 500; Louisiana Heron, 2; Least Sandpiper, 6; Semipalmated Sandpiper, 6; Killdeer, 8; Wilson Plover, 2; Mourning Dove, 11; Ground Dove, 12; Turkey Buzzard, 6; Bald Eagle, 1; Belted Kingfisher, 5; Red-headed Woodpecker, 2; Flicker, 1; Phoebe, 1; Blue Jay, 3; Meadowlark, 1; Grackle, 20; Boat-tailed Grackle, 6; Towhee, 5; Tree Swallow, 25; Loggerhead Shrike, 8; Yellow-throated Warbler, 1; Palm Warbler, 6; Mockingbird, 8; House Wren, 1; Ruby-crowned Kinglet, 1; Blue-gray Gnatcatcher, 3; Robin, 1. Total, 33 species, 650 individuals. Also English Sparrow, 15.—MRS. HERBERT R. MILLS.

Ann Arbor, Mich.—Dec. 26; 9 A.M. to 4 P.M. Cloudy; 1 in. of snow; wind west, light; temp. 20° to 28°. Observers together. Bob-white, 5; Ring-necked Pheasant, 1; Hairy Woodpecker, 1; Downy Woodpecker, 5; Red-headed Woodpecker, 10; Flicker, 1; Blue Jay, 7; Crow, 373+; Redpoll, 9; Tree Sparrow, 141+; Junco, 6; Cardinal, 3; Brown Creeper, 2; White-breasted Nuthatch, 10; Chickadee, 18. Total, 15 species, 592+ individuals.—JOSSELYN and CLAUDE VAN TYNE.

Detroit, Mich. (eastern suburbs and Belle Isle).—Dec. 26; 9 A.M. to 4 P.M. Cloudy; 3 in. of snow; wind west, light; temp. 20°. Herring Gull, 40; Greater Scaup, 3; Golden-eye, 5; Ducks, 50 (species uncertain, flying high overhead); Goshawk, 1; Sparrow Hawk, 1; Hairy Woodpecker, 4; Red-headed Woodpecker, 11; Crow, 5; Pine Grosbeak, 2; Redpoll, 2; Tree Sparrow, 11; White-breasted Nuthatch, 5; Chickadee, 10. Total, 14 species, 150 individuals.—RALPH BEEBE.

Hartland, Wis.—Dec. 27; 9 A.M. to 4 P.M. Clear; ground snow-covered; wind west, strong; temp. —2° at start, 20° at return. Five miles on foot, along country roads and lake shores. Hairy Woodpecker, 1; Downy Woodpecker, 2; Red-headed Woodpecker, 1; Blue Jay, 6; Crow, 4; Pine Siskin, 3; White-breasted Nuthatch, 7; Chickadee, 8. Total, 8 species, 32 individuals.—SUSIE L. SIMONDS.

Ladysmith, Wis.—Dec. 25; 10.30 A.M. to 1.35 P.M., and 3.50 to 4.50 P.M. Clear in morning, snow flurries in afternoon; 12 to 14 in. snow; wind southeast; temp. —10°. Over six miles

on foot to a beaver pond, through dense poplar, hardwood and hemlock woods, and one spruce swamp. Ruffed Grouse, 4; Hairy Woodpecker, 1; Blue Jay, 1; Redpoll, 12; Black-capped Chickadee, 6. Total, 5 species, 24 individuals. On December 23, 15 Evening Grosbeaks and 1 Snowy Owl (evidently a male) were seen.—WALLACE B. GRANGE.

Lauderdale Lakes and vicinity near Elkhorn, Wis.—Dec. 26; 9.30 to 11.40 A.M. and 2 to 4.10 P.M. Partly cloudy; ground snow-covered; wind southwest, strong; temp. 22° at start, 24° at finish. Observers together. About 10 miles on foot. Hairy Woodpecker, 3; Downy Woodpecker, 2; Red-headed Woodpecker, 3; Blue Jay, 10; American Crow, 20; Goldfinch, 1; Redpoll, 30; Tree Sparrow, 25; Clay-colored Sparrow, 1; Northern Shrike, 1; White-breasted Nuthatch, 1; Black-capped Chickadee, 3. Total, 12 species, 108 individuals.—LULA and ROBERT DUNBAR.

Milwaukee, Wis. (Milwaukee Harbor, Lake Park, Menominee River valley, to Calhoun, Waukesha County), shore of Lake Michigan, brushy ravines and river valley, open woods and fields and tamarack swamps).—Dec. 24; 7 A.M. to 5 P.M. Strong northerly winds and snow-squalls in A.M., becoming clear with light wind in P.M., 4 in. of snow; temp. 14° to 18°. Eight hours on foot and two on trolley and bus; starting and finishing points twelve miles apart. Two observers together in A.M., three in P.M. Herring Gull, 100+; Ring-billed Gull, 4; Merganser, 100+ (immense numbers of undetermined Ducks seen well off shore in Lake Michigan); Red-breasted Merganser 1 (many others, probably of this species, seen); Golden-eye, 200+; Long-eared Owl, 1; Barred Owl, 1; Saw-whet Owl, 1 (captured with hands!); Belted Kingfisher, 1 (one or more usually winter along the Menominee River where it seldom freezes over); Hairy Woodpecker, 4; Downy Woodpecker, 5; Red-headed Woodpecker, 5; Northern Flicker, 5 (a few usually winter in the tamarack swamps); Blue Jay, 11; Crow, 20; Bronzed Grackle, 1 (this bird seen nearly every day in same locality); Evening Grosbeak, 17 (a flock of eight and one of nine); Redpoll, 156+; Goldfinch, 1; Tree Sparrow, 150+; Cedar Waxwing, 17; Northern Shrike, 1; Brown Creeper, 1; White-breasted Nuthatch, 3; Chickadee, 10; Robin, 1. Total, 26 species, 826+ individuals. S. PAUL JONES, CLARENCE JUNG and H. L. STODDARD.

Mankato, Minn.—Dec. 25; 9.30 A.M. to 1.30 P.M. Slightly cloudy; ground thinly covered with snow; wind south, strong; temp. 10° to 16°. Hairy Woodpecker, 1; Downy Woodpecker, 1; Horned Lark, 1; Blue Jay, 2; Crow, 1; White-breasted Nuthatch, 3; Black-capped Chickadee, 7; Golden-crowned Kinglet, 4. Total, 8 species, 20 individuals.—C. O. MOHR.

Minneapolis, Minn.—Dec. 25; 11 A.M. to 2 P.M. Partly cloudy; 2 in. of snow; brisk south-east wind; temp. 11° at start, 17° at return. About 7 miles on foot along the east bank of the Mississippi River and nearby fields and woods. American Golden-eye, 6; Quail, 14 (1 covey); Barred Owl, 1; Hairy Woodpecker, 3; Downy Woodpecker, 4; Blue Jay, 3; Bohemian Waxwing, 46 (2 flocks); White-breasted Nuthatch, 3. Total, 8 species, 80 individuals.—LAWRENCE ZELENY.

Minneapolis, Minn.—Dec. 26; 10.30 A.M. to 3.30 P.M. Partly cloudy in forenoon; clear in afternoon; 3 in. snow on ground; temp. 3° in morning to 12° at finish; wind moderate. Distance 12 miles, along Lake Calhoun, Lake Harriett, Minnehaha Creek and Mississippi River. Observers together. Hairy Woodpecker, 4; Downy Woodpecker, 4; Blue Jay, 10; Bohemian Waxwing, 44 (2 flocks); White-breasted Nuthatch, 4; Black-capped Chickadee, 3. Total, 6 species, 78 individuals.—MR. and MRS. E. D. SWEDENBORG.

St. Peter, Minn.—Dec. 26; 1.30 to 5 P.M. Cloudy; 1 in. snow; wind west, light; temp. 18°. Fields, wooded ravines and bluffs along Minnesota River. Six miles on foot. Ruffed Grouse, 2; Mourning Dove, 1; Screech Owl, 1; Great Horned Owl, 1; Hairy Woodpecker, 3; Downy Woodpecker, 2; Blue Jay, 3; Crow, 7; Tree Sparrow, 11; Cedar Waxwing, 1; White-breasted Nuthatch, 1; Chickadee, 6; Golden-crowned Kinglet, 1. Total, 13 species, 40 individuals. Also English Sparrow, approx. 30. The Screech Owl was perched in a small tree in a weed patch from which the Ruffed Grouse were flushed. The Cedar Waxwing was alone in a small clump of cedars.—HARRY JAY LADUE.

Cadiz, Ohio.—Dec. 23; 8.30 A.M. to 12.30 P.M. Sky heavily clouded, light rain part of the time; ground bare; wind light, southwest; temp. 40°. Observers together. Sparrow Hawk, 1; Downy Woodpecker, 2; Red-bellied Woodpecker, 1; Blue Jay, 1; Tree Sparrow, 72; Slate-colored Junco, 6; Song Sparrow, 17; Cardinal, 19; Carolina Wren, 1; White-breasted Nuthatch, 6; Tufted Titmouse, 7; Chickadee, 4. Total, 12 species, 137 individuals. Owing to the scarcity of dogwood berries, gumberries, etc., this is the smallest number of species that we have ever reported from Cadiz.—HARRY B. McCONNELL and JOHN WORLEY.

Canton, Ohio.—Dec. 25; 8 A.M. to 4 P.M. Cloudy, except 1½ hours partly clear; ground and all vegetation covered with a coat of sleet; wind northwest, light; temp. 22° at start, 20° on return. Distance 10 miles. Bob-white, 38 (2 coveys); Kingfisher, 1; Hairy Woodpecker, 1; Downy Woodpecker, 9; Red-headed Woodpecker, 4; Red-bellied Woodpecker, 1; Blue Jay, 1; Red-winged Blackbird, 2; Tree Sparrow, 375; Junco, 30; Song Sparrow, 10; Cardinal, 11; White-breasted Nuthatch, 7; Tufted Titmouse, 10; Black-capped Chickadee, 6. Total, 15 species, 506 individuals.—EDWARD D. KINES.

Canton, Ohio.—Dec. 27; 8 A.M. to 5 P.M. Hazy; trees, shrubs and grass encased in ice; wind west, light; temp. 30°. Twenty-five miles by auto; 12 miles on foot. Observers in twos. Bob-white, 28; Ruffed Grouse, 1; Belted Kingfisher, 2; Hairy Woodpecker, 5; Downy Woodpecker, 14; Red-headed Woodpecker, 7; Blue Jay, 7; Bronzed Grackle, 5; Tree Sparrow, 160; Slate-colored Junco, 2; Song Sparrow, 15; Cardinal, 10; Brown Creeper, 1; White-breasted Nuthatch, 9; Tufted Titmouse, 5; Chickadee, 15. Total, 16 species, 286 individuals.—MAY S. DANNER, MARY KING, BLANCHE VIGNOS, and KATHERINE NEPP.

Lake Erie Shore, Cleveland, Ohio (east to Mentor Headlands).—Dec. 27; 9 A.M. to 1 P.M. Cloudy; ground covered with snow; heavy northwest wind; temp. 27° to 25°. All still water frozen over. Pied-billed Grebe, 1; Herring Gull, 27; Ring-billed Gull, 4; Bonaparte's Gull, 4; Scaup Ducks, 83 (4 flocks); Bob-white, 5; Mourning Dove, 1; Sparrow Hawk, 2; Hairy Woodpecker, 1; Downy Woodpecker, 1; Blue Jay, 4; Meadowlark, 1; Redpoll, 2; Tree Sparrow, 5; Cardinal, 2; Northern Shrike, 2; White-breasted Nuthatch, 1. Total, 18 species, 171 individuals. Also English Sparrow, 25. The three species of Gulls were all seen hunting together, and noted with glasses at very close range, as were also the Redpolls. The Mourning Dove was feeding on the ground in a cornfield. The Shrikes were seen separately, probably 5 miles apart. Titmice, Nuthatches and Woodpeckers were conspicuous by their absence.—A. B. WILLIAMS, JR.

Buckeye Lake, Ohio.—Dec. 26; 7 A.M. to 4 P.M. Cloudy; ground bare, frozen; wind moderate, south, shifting to southwest; temp. 28° to 32°. Distance covered, 8 miles. Observers in two parties. Old Squaw, 5; Herring Gull, 3; Mallard, 45; Black Duck, 300; Pintail, 2; Shoveller, 4; Scaup sp., 30; Bufflehead, 1; Bob-white, 12; Mourning Dove, 1; Marsh Hawk, 1; Red-shouldered Hawk, 1; Sparrow Hawk, 12; Short-eared Owl, 2; Screech Owl, 1; Hairy Woodpecker, 6; Downy Woodpecker, 30; Red-headed Woodpecker, 8; Flicker, 1; Blue Jay, 25; Crow, 150; Cowbird, 10; Meadowlark, 1; Tree Sparrow, 85; Junco, 6; Song Sparrow, 18; Cardinal, 40; Carolina Wren, 2; Brown Creeper, 18; White-breasted Nuthatch, 25; Tufted Titmouse, 30; Black-capped Chickadee, 20; Golden-crowned Kinglet, 1. Total, 34 species, 831 individuals. All large figures approximate.—CHARLES WALKER, FREDERICK WOOD, ROBERT BLACK and ROBERT WEBB.

Columbus, Ohio.—Dec. 26; 8.30 A.M. to 4 P.M. Observers together. Black Duck, 2; Duck sp., 150; Bob-white, 13; Mourning Dove, 5; Marsh Hawk, 8; Rough-legged Hawk (?), 1; Sparrow Hawk, 8; Barn Owl, 1; Screech Owl, 1; Hairy Woodpecker, 4; Downy Woodpecker, 28; Red-bellied Woodpecker, 5; Flicker, 3; Blue Jay, 6; Crow, 30; Rusty Blackbird, 1; Goldfinch, 23; Tree Sparrow, 250; Junco, 33; Song Sparrow, 17; Cardinal, 32; Bewick's Wren, 2; Winter Wren, 1; Brown Creeper, 13; White-breasted Nuthatch, 21; Tufted Titmouse, 20; Chickadee, 12; Golden-crowned Kinglet, 3; Robin, 1. Total, 29 species, 694 individuals.—ROBERT GORDON, JOHN HARLOR, FRANK RIEBEL, RICHARD SATER, JOHN THOMAS, and EDWARD S. THOMAS.

Sugar Grove, Ohio.—Dec. 26; 9 A.M. to 5 P.M. Weather conditions as above. Distance covered 20 miles on foot. Observers together. Red-tailed Hawk, 1; Sparrow Hawk, 1; Hawk sp., 1; Hairy Woodpecker, 3; Downy Woodpecker, 10; Flicker, 1; Blue Jay, 1; Crow, 2; Goldfinch, 20; Tree Sparrow, 30; Junco, 15; Song Sparrow, 15; Cardinal, 50; Carolina Wren, 3; Winter Wren, 1; Brown Creeper, 15; White-breasted Nuthatch, 2; Red-breasted Nuthatch, 6; Tufted Titmouse, 10; Chickadee, 30; Golden-crowned Kinglet, 10. Total, 21 species, 227 individuals.—ARTHUR R. HARPER, HAROLD PETERS, and DALE PONTIUS.

Total Above Three Lists (Wheaton Club, Columbus, Ohio.): 43 species; 1,747 individuals. The Barn Owl was captured, and proved to be an immature bird. Although it was full-grown, it was unable to fly and still had a great deal of the 'natal' down adhering to the tips of its feathers. Another observer reports having heard the 'whine' of young Barn Owls within the last few weeks.

Freeport, Ohio.—Dec. 26; 10.30 to 11.30 A.M., 1 to 4.30 P.M. Cloudy; ground bare; wind southwest to west, brisk; temp. 36° at start, 32° at return. Observers traveled together, 7 miles on foot. Country covered was low, brushy hills and open fields adjacent to creek-bottoms flooded by recent rains. Bob-white, 20 (2 coveys); Red-tailed Hawk, 2; Great Horned Owl, 1; Hairy Woodpecker, 2; Downy Woodpecker, 7; Red-headed Woodpecker, 1; Red-bellied Woodpecker, 3; American Crow, 3; Meadowlark, 8 (1 flock); Tree Sparrow, 245 (4 flocks); Slate-colored Junco, 6; Song Sparrow, 11; Cardinal, 15; Carolina Wren, 1; White-breasted Nuthatch, 3; Tufted Titmouse, 4; Black-capped Chickadee, 4; Golden-crowned Kinglet, 1. Total, 18 species, 337 individuals.—LONZO S. GREEN and SETH L. SNYDER.

Huron, Ohio.—Dec. 25; 10 A.M. to 5 P.M. Cloudy, snowing lightly; wind northwest, light; temp. 25°. Herring Gull, 20; Bonaparte's Gull, 6; Merganser, 3; Golden-eye, 66; Red-headed Woodpecker, 2; Blue Jay, 3; Crow, 4; Starling, 18; Red-winged Blackbird, 6; Bronzed Grackle, 5; Tree Sparrow, 76; Song Sparrow, 2; Cardinal, 2; White-breasted Nuthatch, 3; Chickadee, 1. Total, 15 species, 217 individuals. The Starlings are part of a flock that has wintered here for the past two winters and some of which bred here this summer.—H. G. MORSE.

Paulding, Ohio (along Flat Rock Creek).—Dec. 27; 8 A.M. to 1 P.M. Clear; ground barely covered with ice and snow; wind northwest, light; temp. 25° to 33°. Nine miles. Herring Gull, 23 (seen Dec. 20, above dam in Auglaize River, 70 miles inland from Lake Erie); American Merganser, 12; Bob-white, 25; Mongolian Pheasant, 15 (introduced); Red-tailed Hawk, 1; Barred Owl, 1; Screech Owl, 1; Hairy Woodpecker, 4; Downy Woodpecker, 11; Red-headed Woodpecker, 10; Northern Flicker, 5; Blue Jay, 14; American Crow, 8; Tree Sparrow, 6; Slate-colored Junco, 6; Song Sparrow, 12; Cardinal, 2; White-breasted Nuthatch, 10; Tufted Titmouse, 7; Black-capped Chickadee, 23. Total, 20 species, about 190 individuals.—L. H. GRESSLEY.

Pennsville, Ohio.—Dec. 25; 9 A.M. to 12 M. and 2 to 4 P.M. Cloudy; ground frozen, north wind, moderate breeze; temp. 30°, rising to 36°. North 3 miles, 1 mile along Wolf Creek, return by different route. Bob-white, 13; Sparrow Hawk, 1; Downy Woodpecker, 10; Red-bellied Woodpecker, 4; Flicker, 1; Crow, 8; Tree Sparrow, 112; Junco, 24; Song Sparrow, 11; Cardinal, 7; Winter Wren, 5; White-breasted Nuthatch, 2; Tufted Titmouse, 27; Chickadee, 18. Total, 14 species, 243 individuals.—PAUL A. WELLS.

Oberlin and vicinity, Ohio.—Dec. 27; 8 A.M. to 4.45 P.M. Mostly cloudy; ¼ in. of snow; ground frozen hard; wind west-northwest, strong; temp. 23°. Ten miles northwest, partly on street car, and one mile south, territory ranging from flat, open country to deep, wooded ravines. Observers in one group of three, other two alone. Bob-white, 31; Marsh Hawk, 2; Sparrow Hawk, 5; Barred Owl, 1; Belted Kingfisher, 2; Hairy Woodpecker, 5; Downy Woodpecker, 12; Red-bellied Woodpecker, 1; Flicker, 5; Blue Jay, 16; Crow, 7; Meadowlark, 2; Tree Sparrow, 210; Junco, 56; Cardinal, 23; Winter Wren, 1; Brown Creeper, 2; White-breasted Nuthatch, 10; Tufted Titmouse, 3; Chickadee, 19. Total, 20 species, 413 individuals.—HAROLD C. JONES, SYDNEY BUNKER, S. CHARLES KENDEIGH, ELLSWORTH METZLER, and ROLAND WALKER (Cardinal Ornithological Club).

Youngstown, Ohio.—Dec. 26; 7 A.M. to 4.30 P.M. Cloudy; ground frozen, slightly whitened with snow; all trees, shrubbery, weeds and grasses coated with ice; wind south, light; temp. 20° to 30°. Distance walked about 15 miles; parties separated in making lists. Bob-white, 67; Mourning Dove, 13; Cooper's Hawk, 1; Red-tailed Hawk, 1; Sparrow Hawk, 1; Screech Owl, 1; Great-horned Owl, 1; Belted Kingfisher, 1; Hairy Woodpecker, 10; Downy Woodpecker, 32; Red-bellied Woodpecker, 2; Blue Jay, 66; Crow, 1; Meadowlark, 6; Goldfinch, 2; Tree Sparrow, 186; Slate-colored Junco, 27; Song Sparrow, 26; Cardinal, 34; Brown Creeper, 4; White-breasted Nuthatch, 24; Tufted Titmouse, 28; Black-capped Chickadee, 31; Golden-crowned Kinglet, 15. Total, 24 species, 580 individuals.—GEO. L. FORDYCE, ELIZABETH NORTHRUP, C. A. LEEDY, WILLIS H. WARNER, and EVAN C. DRESSEL.

On Dec. 9, 1921, I personally observed an Evening Grosbeak about 6 miles from Youngstown. This is our first and only record of this species for this locality.—G. L. F.

Fort Wayne, Ind.—Dec. 28; 8.30 to 11 A.M. Cloudy, light covering of snow on the ground; wind south, light; temp. 30°. Three miles along river. Observers together. Red-shouldered Hawk, 1; Hairy Woodpecker, 4; Downy Woodpecker, 8; Red-headed Woodpecker, 10; Blue Jay, 5; Crow, 60; Tree Sparrow, 50; Slate-colored Junco, 50; Cardinal, 1; White-breasted Nuthatch, 9; Tufted Titmouse, 6; Black-capped Chickadee, 12. Total, 12 species, 216 individuals.—MR. and MRS. A. A. RINGWALT, and HENRY MILLER.

Goshen, Ind. (south along Elkhart River, up Turkey Creek to New Paris).—Dec. 26; 9 A.M. to 4 P.M. Cloudy; 3 in. of snow; wind southwest, light; temp. 28° at start, 29° at return. Nine miles on foot; return by interurban car. Mallard Duck, 3; Red-shouldered Hawk, 1; Barred Owl, 1; Kingfisher, 2; Downy Woodpecker, 3; Flicker, 1; Blue Jay, 6; Crow, 6; Tree Sparrow, 30; Slate-colored Junco, 24; Song Sparrow, 7; Cardinal, 8; White-breasted Nuthatch, 8; Chickadee, 14; Robin, 1. Total, 15 species, 115 individuals.—MR. and MRS. GEO. R. HARPER and MRS. H. W. EBY.

Holland, Ind.—Dec. 26. Cloudy, ground bare; wind north, light; temp. 28°. Eight miles on foot. Observers together. Killdeer, 14; Bob-white, 10; Marsh Hawk, 1; Sparrow Hawk, 1; Screech Owl, 1; Hairy Woodpecker, 9; Downy Woodpecker, 23; Flicker, 2; Red-bellied Woodpecker, 12; Pileated Woodpecker, 2; Yellow-bellied Sapsucker, 2; Blue Jay, 20; Crow, 6; Meadowlark, 2; Goldfinch, 24; Tree Sparrow, 202; Slate-colored Junco, 270; Song Sparrow, 88; Towhee, 2; Cardinal, 266; Mockingbird, 1; Carolina Wren, 4; Brown Creeper, 4; White-breasted Nuthatch, 5; Red-breasted Nuthatch, 10; Tufted Titmouse, 73; Chickadee, 32; Bluebird, 14. Total, 28 species, 1,100 individuals.—DR. CLAUDE LOMAX, and DR. WILLIAM LOMAX.

Indianapolis, Ind.—Dec. 26; 10 A.M. to 3.40 P.M. Cloudy; dull; south wind; temp. 30°. Eight miles along Buck Creek on foot. Observers together. Mourning Dove, 4; Marsh Hawk, 1; Downy Woodpecker, 3; Red-headed Woodpecker, 1; Blue Jay, 1; Crow, 155; Goldfinch, 15; Tree Sparrow, 3; Song Sparrow, 5; Cardinal, 10; White-breasted Nuthatch, 2; Tufted Titmouse, 3; Chickadee, 2. Total, 13 species, 305 individuals.—R. M. PRUITT, HAROLD METCALF, SAMUEL E. PERKINS, IV, and SAMUEL E. PERKINS, III.

Lafayette, Ind.—Dec. 26; 8.45 A.M. to 1.30 P.M. Cloudy; snow in sheltered places; trees covered with ice; wind southwest, light; temp. 25° at start, 29° at return. Along Wabash River, river road to Wabash Valley Sanitarium, return across country and through Happy Hollow. Eight miles on foot. Mallard (?) Duck, 1; Sparrow Hawk, 1; Downy Woodpecker, 11; Red-headed Woodpecker, 2; Red-bellied Woodpecker, 1 (also seen Dec. 19); this bird has not been noted before for years; Blue Jay, 6; Crow, 8; American Goldfinch, 2; Tree Sparrow, 40; Song Sparrow, 3; Cardinal, 6; White-breasted Nuthatch, 5; Tufted Titmouse, 38; Chickadee, 2. Total, 14 species; about 125 individuals. Also House Sparrows, too numerous to count.—M. L. FISHER.

Roachdale, Ind.—Dec. 25; 9 A.M. to 3 P.M. Clear; ground practically bare; wind north-east, light; temp. 26° to 31°. Nine miles on foot. Red-tailed (?) Hawk, 4; Sparrow Hawk, 1; Belted Kingfisher, 1; Hairy Woodpecker, 2; Downy Woodpecker, 11; Red-bellied Wood-

pecker, 7; Flicker, 1; Prairie Horned Lark, 10; Blue Jay, 3; American Crow, 50; Tree Sparrow, 140; Slate-colored Junco, 8; Song Sparrow, 7; Cardinal, 6; White-breasted Nuthatch, 8; Tufted Titmouse, 11; Black-capped Chickadee, 18. Total, 17 species, about 288 individuals.—WARD J. RICE.

Terre Haute, Ind.—Dec. 26; 8.30 A.M. to 12 M.; 2 to 4 P.M. Cloudy; ground bare; wind southwest; temp. 30° at start, 32° at return. North on tow-path, northeast along cemetery, and Lost Creek and east over farm and woodland. About 9 miles on foot. Two observers in afternoon together. Bob-white, 10; Mourning Dove, 2; Sharp-shinned Hawk, 1; Sparrow Hawk, 2; Belted Kingfisher, 1; Hairy Woodpecker, 3; Downy Woodpecker, 11; Red-headed Woodpecker 3; Flicker, 3; Blue Jay, 9; Crow, 8; Meadowlark, 2; Redpoll, 6; Vesper Sparrow, 16; Junco, 50; Tree Sparrow, 6; Song Sparrow, 9; Cardinal, 30; Brown Creeper, 1; White-breasted Nuthatch, 3; Tufted Titmouse, 7; Chickadee, 9. Total, 22 species, 192 individuals.—JAMES M. TILLEY and M. F. WHELAN.

Albion, Ills. (vicinity).—Dec. 27; 7 to 11.30 A.M. Clear; ground bare; wind northwest, light; temp. 30° at start, 41° at finish. Seven miles on foot. Quail, 10; Dove, 1; Barred Owl, 1; Downy Woodpecker, 7; Red-bellied Woodpecker, 4; Flicker, 3; Blue Jay, 7; Crow, 30; Meadowlark, 10; Goldfinch, 3; White-crowned Sparrow, 1; Tree Sparrow, 20; Slate-colored Junco, hundreds; Song Sparrow, 10; Towhee, 1; Cardinal, 8; Tufted Titmouse, 20; Carolina Chickadee, 14; Robin, 1; Bluebird, 30. Total, 20 species, about 500 individuals.—JOHN H. GOOCH.

Glencoe, Ills.—Dec. 26; 9.30 A.M. to 6 P.M. Cloudy; 4 in. of snow; west wind; temp. about 25°. Woods and ravines at Lake Michigan, then north on the shore to Braeside; west from there to the Forest Preserve and Skokie Marsh. Observers together. Herring Gull, 23; Bonaparte's Gull, 13; Golden-eye, 18; 2 rafts of Ducks, about 300 individuals; Hairy Woodpecker, 4; Downy Woodpecker, 5; Red-headed Woodpecker, 2; Blue Jay, 9; Crow, 18; Tree Sparrow, 1; Cedar Waxwings, 125, (2 flocks); Brown Creeper, 1; White-breasted Nuthatch, 1. Total, 12 species, about 520 individuals.—GEORGE CROOK and CHARLES SWENSON.

Paxton, Ills.—Dec. 26; 7.45 A.M. to 3 P.M. Cloudy; ½ in. snow on ground and trees with dusting of snow; wind southwest, light; temp. 20° continual. Paxton to Rantoul on Inter-urban, Rantoul to Penfield in automobile, 4 miles through woods. Observers apart. Mallard, 21; Red-tailed Hawk, 2; Broad-winged Hawk, 1; American Rough-legged Hawk, 5; Sparrow Hawk, 2; Hairy Woodpecker, 14; Downy Woodpecker, 31; Red-headed Woodpecker, 175 +; Red-bellied Woodpecker, 11; Flicker, 11; Prairie Horned Lark, 10; Blue Jay, 67; Crow, 2000 +; Red-winged Blackbird, 7; American Goldfinch, 3; Lapland Longspur, 6; Vesper Sparrow, 2; White-throated Sparrow, 2; Tree Sparrow, 500 +; Slate-colored Junco, 325 +; Song Sparrow, 1; Cardinal, 30; Winter Wren, 1; Brown Creeper, 2; White-breasted Nuthatch, 28; Red-breasted Nuthatch, 10; Tufted Titmouse, 30; Black-capped Chickadee, 125 +; Golden-crowned Kinglet, 1. Total, 29 species, about 3,423 individuals. An American Woodcock was seen Dec. 22.—FRED and VICTOR CARLSON, GEORGE, EDWARD and SIDNEY EKBLAW.

Waukegan, Ills.—Dec. 26; 8.45 A.M. to 3 P.M. Cloudy; 2 in. of snow; wind southwest, light; temp. 22° at start, 26° at return. Twelve miles on foot. Observers together. Herring Gull, 12; Merganser, 100 +; Old Squaw, 3; Canada Goose, 10; Sparrow Hawk, 1; Short-eared Owl, 1 (collected); Hairy Woodpecker, 1; Downy Woodpecker, 8; Red-headed Woodpecker, 3; Blue Jay, 30; Crow, 12; Tree Sparrow, 100 +; Slate-colored Junco, 25; Brown Creeper, 1; White-breasted Nuthatch, 3; Chickadee, 40; Golden-crowned Kinglet, 2. Total, 17 species, 352 + individuals.—S. S. GREGORY, JR. and PARKER BLAIR.

Bettendorf, Iowa (McManus Woods and Credit Island Park, Davenport, and along Mississippi River and Duck Creek, Bettendorf).—Dec. 26; 8.15 A.M. to 3.15 P.M. Cloudy; sunshine for about an hour at noon; hazy during most of morning; 2 in. of snow; ice in creek and river frozen except in channel; wind light, west; temp. 24° at start, 30° at return. Nine miles on foot. Herring Gull, 221; American Merganser, 18; American Golden-eye, 6; Duck (sp.?), 2; Rough-legged (?) Hawk, 1; Golden (?) Eagle, 1; Hairy Woodpecker, 1; Downy

Woodpecker, 44; Red-headed Woodpecker, 9; Red-bellied Woodpecker, 1; Blue Jay, 22; Crow, 9; Red-winged Blackbird, 150+ (2 flocks); Tree Sparrow, 150+; Junco, 38; Song Sparrow, 4; Cardinal, 8; Brown Creeper, 11; White-breasted Nuthatch, 20; Tufted Titmouse, 7; Chickadee, 23. Total, 21 species, about 746 individuals. A belated Kingfisher was heard several times on Dec. 13.—HUGO H. SCHRODER.

Emmetsburg, Iowa.—Dec. 27; 8 A.M. to 6 P.M. Wind south; temp. at start 0°, return 12°. Seven miles north-northeast along shores of Lake Medium; east ½ mile; west 3 miles to Des Moines River; south 5 miles along river; ½ mile east to Emmetsburg; 16 miles. Prairie Hen, 127; Dove, 5; Short-eared Owl, 6; Screech Owl, 3; Hairy Woodpecker, 4; Northern Downy Woodpecker, 13; Flicker, 1; Prairie Horned Lark, 31; Blue Jay, 6; Crow, 46; Red-winged Blackbird, 1; Bronzed Grackle, 3; Red-poll, 22; Tree Sparrow, 120; Slate-colored Junco, 15; Brown Creeper, 11; White-breasted Nuthatch, 12; Chickadee, 12; Golden-crowned Kinglet, 2. Total, 19 species, 468 individuals.—LE ROY TITUS WEEKS and W. F. COULTAS.

Iowa City, Iowa.—Dec. 23; 8.15 A.M. to 2.30 P.M. Cloudy; 1 in. snow; trees and vegetation ice-coated from yesterday's rain; wind light northeast at start, becoming stronger in P.M. and accompanied during last hour by snow-flurries; temp. at start 16°, on return 20°. Four miles south, then back in circle to City Park, then along river 1 mile; about 10 miles on foot. Observers together except last mile. Bob-white, 2; Marsh Hawk, 1; Hairy Woodpecker, 2; Downy Woodpecker, 9 (4 males and 5 females); Red-headed Woodpecker, 4 (3 ads. and 1 imm.), Red-bellied Woodpecker, 1; Blue Jay, 15; Crow, 1; Cowbird, 1 (male; studied at distance of 25 feet with 5× glasses); Purple Finch, 4 (3 males and 1 female); Goldfinch, 6; Tree Sparrow, 50+; Slate-colored Junco, 12; Cardinal, 3 (2 males and 1 female); Brown Creeper, 2; White-breasted Nuthatch, 10; Tufted Titmouse, 1; Black-capped Chickadee, 30. Total, 18 species, 154 individuals.—DAYTON STONER and J. L. HORSFALL.

Keokuk (Lee Co.), Iowa.—Dec. 26; 12 M. to 5 P.M. Cloudy, followed by clearing; very light snow on ground; west wind, very light; temp. 28° at start, 34° at return. Seven miles on foot; used street-car across city. Herring Gull, 175 (seen mainly below power dam, across Mississippi River; water above dam frozen; river below dam clear of ice); Black Duck, 35; Lesser Scaup, 210+; Golden-eye, 255+; (points of observation unusually favorable from top of dam, on bridge, and from dyke on Illinois side of river); Sparrow Hawk, 1; Hairy Woodpecker, 5; Downy Woodpecker, 25; Red-bellied Woodpecker, 3; Blue Jay, 7; Crow, 6; Purple Finch, 15; Goldfinch, 18; Tree Sparrow, 38; Slate-colored Junco, 65; Song Sparrow, 3; Towhee, 1; Cardinal, 33; Brown Creeper, 3; White-breasted Nuthatch, 8; Red-breasted Nuthatch, 3; Tufted Titmouse, 13; Chickadee, 61. Total 22 species, 983 individuals.—C. E. EHINGER.

New Hampton, Iowa (along thinly wooded valley of Wapsipinicon River).—Dec. 26; 1 to 5.30 P.M. Clear; 2 in. of snow; practically no wind; temp. at 1 o'clock 26°. Six miles on foot. Observers together. Short-eared Owl, 1; Hairy Woodpecker, 2; Blue Jay, 2; Crow, 4; Redpoll, 8; Tree Sparrow, 1; Chickadee, 2; White-breasted Nuthatch, 3. Total, 8 species, 23 individuals. The Owl was startled out of a clump of oak close to the ground and about a rod in front of us; the Redpolls were in a box-elder tree directly over our heads.—CHARLES J. SPIKER and CLARENCE WITTENBURG.

Oskaloosa, Iowa (along Spring Creek and tributary ravines).—Dec. 25; 12 M. to 4 P.M. Clear; 2 in. snow; wind southwest, light; temp. 18° at start, 24° at return. Five miles on foot, returning by different route. Bob-white, 7. (1 covey); Rough-legged Hawk, 1; American Sparrow Hawk, 2; American Long-eared Owl, 1; Barred Owl, 1; Screech Owl, 1; Hairy Woodpecker, 11; Downy Woodpecker, 15; Red-headed Woodpecker, 7; Red-bellied Woodpecker, 2; Northern Flicker, 1; Blue Jay, 13; American Crow, 7; Tree Sparrow, 75; Slate-colored Junco, 42; Song Sparrow, 1 (with Juncos); Cardinal, 5; Brown Creeper, 3; White-breasted Nuthatch, 12; Red-breasted Nuthatch, 2; Tufted Titmouse, 5; Black-Capped Chickadee, 17. Total, 22 species, 231 individuals. I saw a Sparrow Hawk kill and partly eat a Hairy Woodpecker.—GERTRUDE E. DIXON.

Pierson, Iowa.—Dec. 26; 1 to 5 P.M. Partly cloudy; 4 to 6 in. of snow; no wind; temp. 25°.

Country road, then along Pierson Creek and over wooded hills near Cedar Bluff. Observers not together. One observer, E. W. Johns, on his farm three miles west of town, 4 to 5 P.M. Short-eared Owl, 1; Hairy Woodpecker, 1; Downy Woodpecker, 6; Blue Jay, 8; Crow, 15; Meadowlark, 4; Prairie Horned Lark, 25; Tree Sparrow, 50; Junco, 15; Chickadee, 10. Total, 10 species, 135 individuals. A Bohemian Waxwing was observed in W. R. Mill's garden Dec. 24. A pair of Cardinals and a Brown Creeper were seen Dec. 25.—WIER R. MILLS and E. W. JOHNS.

Winthrop, Iowa (Pierce farm, south along Buffalo Creek to 'The Mounds' and return).—Dec. 23; 8 A.M. to 2.30 P.M. Cloudy all day; depth of snow varied, about 1 in. on average; frequent open places in creek; quite strong northeast wind, light snow in the air in the afternoon; temp. 12° at start, 18° at return. About 12 miles on foot; a different route followed on return trip. Canada Goose, 17, (this flock, going north, passed within about 100 feet of me. A short time later I saw a flock of about 7 which was not positively identified as Geese or Ducks, alighting in a cornfield. These were probably a part of the first flock. Geese at this date are very unusual); Hawk, 1 (seen at a distance); Northern Downy Woodpecker, 6; Prairie Horned Lark, 10 (flock); Blue Jay, 2; American Crow, 34; White-breasted Nuthatch, 5; Black-capped Chickadee, 9 (flock). Total, 8 species, 84 individuals.—FRED J. PIERCE.

Bowling Green, Ky. (along the Nashville Pike, Glen Lilly, and along Jennings Creek).—Dec. 26; 6.45 A.M. to 4.30 P.M. Thick, cloudy; ground bare; west wind, light; temp. 32° at start, 45° at return. Fifteen miles on foot. Mourning Dove, 1 (very scarce thus far this winter); Marsh Hawk, 1; Red-shouldered Hawk, 1; Broad-winged Hawk, 1; Sparrow Hawk, 1; Barred Owl, 1; Hairy Woodpecker, 6; Southern Downy Woodpecker, 15; Red-bellied Woodpecker, 10; Flicker, 20; Prairie Horned Lark, 26; Blue Jay, 28; Crow, 500 (a Crow-roost visited); Meadowlark, 73; Purple Finch, 74; Goldfinch, 4; White-crowned Sparrow, 71; White-throated Sparrow, 54; Chipping Sparrow, 71; Slate-colored Junco, 160; Song Sparrow, 58; Towhee, 21; Cardinal, 88; Migrant Shrike, 1; Myrtle Warbler, 59; Mockingbird, 41; Carolina Wren, 8; Bewick Wren, 5; Brown Creeper, 4; White-breasted Nuthatch, 7; Tufted Titmouse, 74; Carolina Chickadee, 68; Golden-crowned Kinglet, 2; Robin, 1; Bluebird, 38. Total, 35 species, 1,593 individuals. Other birds known to be wintering here are Killdeer, Bob-white, Turkey Vulture, Black Vulture, and Screech Owl.—GORDON WILSON.

Nashville, Tenn. (Peabody College campus, Knapp Farm, Overton Hills).—Dec. 24; 7.30 to 8 A.M.; 9 A.M. to 12.30 P.M.; 2.30 to 5 P.M. Cloudy; rained the night before and still very humid; wind south at start, brisk, north at finish; temp. 58° at start, 38° at finish. Ten miles on foot; alone. Mallard, 35; Killdeer, 34 (1 flock of 21); Bob-white, 11; Mourning Dove, 6; Black Vulture, 50 (roosting in trees on top of hill); Red-tailed Hawk, 2; Sparrow Hawk, 2; Great Horned Owl, 2; Hairy Woodpecker, 5; Southern Downy Woodpecker, 5; Yellow-bellied Sapsucker, 1; Pilcated Woodpecker, 2; Northern Flicker, 13; Prairie-horned Lark, 25; American Crow, 26; Meadowlark, 45; Bronzed Grackle, 26; American Goldfinch, 22; Savannah Sparrow, 1; White-crowned Sparrow, 14; White-throated Sparrow, 37; Field Sparrow, 34; Carolina Junco, 60; Song Sparrow, 57; Swamp Sparrow, 2; Fox Sparrow, 3; Towhee, 15; Cardinal, 33; Myrtle Warbler, 8; Mockingbird, 16; Carolina Wren, 14; Bewick Wren, 1; Brown Creeper, 5; White-breasted Nuthatch, 6; Tufted Titmouse, 5; Carolina Chickadee, 23; Golden-crowned Kinglet, 4; Bluebird, 18. Total, 39 species, 675 individuals.—JESSE M. SHAVER.

Creve Cœur Lake (St. Louis Co.), Mo.—Dec. 26; 10 A.M. to 4 P.M. Rain, followed by freezing Dec. 22–26; trees and bushes ice-covered; no wind; temp. A.M. about freezing; P.M. thawing. Distance traversed in walk 6½ miles. Hairy Woodpecker, 1; Downy Woodpecker, 21; Red-bellied Woodpecker, 7; Flicker, 7; Crow, 3; Cowbird, 1; Red-winged Blackbird, 6 large flocks, males, 1 flock 15 females, 1 solitary female, estimated in all 3,000; Purple Finch, 2; Goldfinch, 5; Pine Siskin, 1; Tree Sparrow, 250; White-throated Sparrow, 1; Slate-colored Junco, 300; Song Sparrow, 12; Fox Sparrow, 3; Towhee, 1; Cardinal, 63; Carolina Wren, 1; White-breasted Nuthatch, 1; Tufted Titmouse, 14; Black-capped Chickadee, 37. Total, 21 species, about 3,700 individuals.—R. J. TERRY, EDWARD H. CHRISTIE, and RICHARD POUGH.

Kansas City, Mo.—Dec. 24; 9 A.M. to 1 P.M. Cloudy, changing to partly clear, with snow-flurries; ground coated with ice; north breeze; temp. 11°. Regions canvassed: Swope Park woodlands, and Sunset Hill, open country. Four observers working in two groups. Marsh Hawk, 1; Cooper Hawk, 1; Barred Owl, 1; Hairy Woodpecker, 12; Downy Woodpecker, 37; Red-bellied Woodpecker, 8; Blue Jay, 10; Crow, 28; Goldfinch, 4; Harris's Sparrow, 1; Tree Sparrow, 77; Junco, 137; Song Sparrow, 13; Towhee, 4; Cardinal, 93; Carolina Wren, 17; Brown Creeper, 6; White-breasted Nuthatch, 5; Tufted Titmouse, 68; Chickadee, 129; Golden-crowned Kinglet, 9. Total, 21 species, 661 individuals. Also English Sparrow, 235. On Dec. 25, Walter Cunningham reported great flocks of Northern (?) Red-winged Blackbirds, 1,000 or more, in the Missouri bottomland near the mouth of the Blue River.—ISABELLE CLARK, KATHERINE HINES, WALTER CUNNINGHAM, and ALBERT E. SHIRLING (members of Burroughs Club).

Marionville, Mo.—Dec. 26; 8 A.M. to 4 P.M. Wind strong, southeast; ground bare; temp. 27° to 50°. Distance covered, 15 miles on foot. Wilson's Snipe, 1; Quail, 25; Red-tailed Hawk, 3; Sparrow Hawk, 1; American Rough-legged Hawk, 1; Screech Owl, 2; Kingfisher, 2; Northern Pileated Woodpecker, 1; Hairy Woodpecker, 3; Downy Woodpecker, 12; Flicker, 4; Horned Lark, 12; Crow, 8,000; Meadowlark, 8; Goldfinch, 4; Harris's Sparrow, 3; Tree Sparrow, 12; Field Sparrow, 50; Slate-colored Junco, 400; Song Sparrow, 35; Swamp Sparrow, 25; Cardinal, 40; Migrant Shrike, 1; Winter Wren, 2; White-breasted Nuthatch, 3; Tufted Titmouse, 40; Black-capped Chickadee, 50; Bluebird, 20. Total, 28 species, approximately 8,760 individuals. Dec. 21, immense flock of Ducks.—JOHNSON NEFF.

Anniston, Ala.—Dec. 26; 7 A.M. to 5 P.M. Cloudy forenoon; veil of clouds afternoon; temp. at start, 38°; at return, 52°. Area traversed, forenoon about 1 mile radius in the vicinity of Oxford Lake, marsh and fields; afternoon a like area east of and adjoining the city of Anniston, fields, ravines and stony mountain-sides. The two areas are 3 miles apart. Alone and on foot; street-car from one area to other. Killdeer, 20; Bob-white, 4; Mourning Dove, 13; Turkey Vulture, 3; Marsh Hawk, 1; Red-shouldered Hawk, 1; Belted Kingfisher, 1; Downy Woodpecker, 1; Yellow-bellied Sapsucker, 1; Red-headed Woodpecker, 2; Red-bellied Woodpecker, 1; Flicker, 2; Phoebe, 1; Blue Jay, 28; Crow, 8; Meadowlark, 10; Bronzed Grackle, 6; Purple Finch, 6; Goldfinch, 22; Vesper Sparrow, 7; White-throated Sparrow, 23; Field Sparrow, 62; Slate-colored Junco, 91; Song Sparrow, 36; Fox Sparrow, 3; Towhee, 26; Cardinal, 28; Pine Warbler, 2; Myrtle Warbler, 4; Pipit, 8; Mockingbird, 6; Brown Thrasher, 5; Carolina Wren, 6; Bewick's Wren, 1; Brown-headed Nuthatch, 2; Tufted Titmouse, 2; Carolina Chickadee, 7; Ruby-crowned Kinglet, 7; Hermit Thrush, 2; Bluebird, 22. Total, 40 species, 481 individuals. An 8-power field-glass was used.—R. H. DEAN.

Bismarck, N. Dak.—Dec. 26; 12.30 to 6 P.M. Clear; 4 in. of snow; no wind; temp. at start 10°, on return 5°. Eighteen miles on foot, north along Missouri River and back across prairie. Prairie Sharp-tailed Grouse, 20; Northern Hairy Woodpecker, 1; Downy Woodpecker, 1; Hoyt's Horned Lark, 5; Magpie, 15; Blue Jay, 1; Redpoll, 300 (5 large flocks); Bohemian Waxwing, 50; White-breasted Nuthatch, 1; Long-tailed Chickadee, 25. Total, 10 species, 410 individuals. Waxwings seen in front yard at start; very tame.—RUSSELL REID.

Fargo Region, N. Dak.—Dec. 26; five hours. Day bright; light west wind; 4 in. of snow; 2° at 11 A.M. and about 0° at 4 P.M. on return. Prairie Chicken, 10 (fresh tracks in the snow observed only); Short-eared Owl, 13 (colony or flock); Downy Woodpecker, 5; Brown Creeper, 1. White-breasted Nuthatches, 5; Chickadees, 11. Total, 6 species, 45 individuals. Also English Sparrow, 500. P. S. H. Pollock saw 2 Blue Jays.—DANIEL FREEMAN and R. L. HUMPHRIES.

Flandreau (Moody Co.), S. Dak.—Dec. 24; 9.30 to 3 P.M. Clear; 2 inches of snow; temp. 12°. Prairie Chicken, 75; Marsh Hawk, 2; Screech Owl, 1; Hairy Woodpecker, 6; Downy Woodpecker, 2; Crow, 500; Thick-billed Red-wing, 4; Snow Bunting, 50; Brown Creeper, 2; White-breasted Nuthatch, 5; Chickadee, 30; Ringed-necked Pheasant, 3; Total, 12 species, 680 individuals —HAROLD RICE.

Dell Rapids, S. Dak.—Dec. 25; 9.30 A.M. to 12.30 P.M. Clear; 4 in. of snow; south wind, strong; temp. 5° at start, 14° at return. Along the dells, across fields and meadows to Big Sioux River, which was followed returning. About 7 miles on foot. Ring-necked Pheasant, 3; Rough-legged Hawk, 1; Short-eared Owl, 1; Downy Woodpecker, 1. Prairie Horned Lark, about 60; Magpie, 1; Crow, 6. Total, 7 species, about 73 individuals.—EDWIN C. ANDERSON.

Lennox, S. Dak. (in town and country east of town).—Dec. 26; 11.30 A.M. to 4 P.M. Cloudy; 5 in. of snow; wind variable, light; temp. about 25°; about 10 miles on foot. Pheasant, 1; Goshawk, 1; Downy Woodpecker, 1; Crow, about 100; Horned Lark, 97 (many small flocks); Tree Sparrow, 33; Northern Shrike, 1; White-breasted Nuthatch, 1; Chickadee, 5. Total, 9 species, about 240 individuals.—W. B. MALLORY.

Yankton, S. Dak.—Dec. 27; 1.30 to 5.15 P.M. Fair; ground covered with about 4 in. of snow; wind south, medium; temp. 28°. Distance covered about 6 miles. Observers together. Hairy Woodpecker, 2; Downy Woodpecker, 3; Flicker, 2; Prairie Horned Lark, 20; Magpie, 2; Crow, 20; Western Meadowlark, 1; Tree Sparrow, 12; Slate-colored Junco, 15; Cardinal, 2; Brown Creeper, 2; White-breasted Nuthatch, 2; Chickadee, 15. Total, 13 species, 98 individuals.—AUSTIN P. and PHILO J. LARRABEE.

Fremont, Neb.—Dec. 27; 8.30 A.M. to 12.30 P.M., 2 to 5.45 P.M. Clear; light wind; light patches of snow in spots; temp. 30° to 45° or 50°. Cemetery, Murphy's Island, Hormel's Island, country roads, and fields. Canada Goose, 45 (flock); Mourning Dove, 10; Rough-legged Hawk, 1; Screech Owl, 1; Short-eared Owl, 1; Barn Owl, 1; Hairy Woodpecker, 3; Downy Woodpecker, 4; Northern Flicker, 2; Prairie Horned Lark, 3; Blue Jay, 2; Crow, 20; Pine Siskin, 5; Red Crossbill, 15; Tree Sparrow, 150; Junco, 6; Cardinal, 1; Northern Shrike, 3; Cedar Waxwing, 75 (to 100); Bohemian Waxwing, 100 (to 150); White-breasted Nuthatch, 1; Red-breasted Nuthatch, 7; Brown Creeper, 2; Chickadee, 18; Golden-crowned Kinglet, 7; Townsend's Solitaire, 3. Total, 26 species, 486 individuals. Up to Dec. 22, many Goldfinches and numerous kinds of Hawks were about.—LILY RUEGG BUTTON.

Hays, Kans.—Dec. 26; 2 to 5.30 P.M. Clear and mild. Wooded creek, plowed fields, and prairie. Wild Duck (unidentified) 1; Prairie Chicken, 7; Hawk (unidentified) 1; Belted Kingfisher, 1; Hairy Woodpecker, 6; Downy Woodpecker, 3; Red-shafted Flicker, 1; Desert Horned Lark, 19; Crow, between 300 and 400; Meadowlark, 7; Western Savannah Sparrow (?), 1; Slate-colored Junco, 30; Chickadee, 28. Total, 13 species, 440 individuals.—L. D. WOOSTER.

Hesston, Kans.—Dec. 27; 10.30 A.M. to 5 P.M. Partly cloudy; ground dry; wind, south-east, light; temp. 40°. Twelve miles on foot, 5 miles south along Middle Emmet Creek, remainder across prairie and farm land. Observers together. Mourning Dove, 7; Hairy Woodpecker, 2; Downy Woodpecker, 6; Flicker, 1; Common Crow, 50; McCown's Longspur, 13; Western Savannah Sparrow, 6 (always in pairs away from other birds); Harris's Sparrow, 68; Tree Sparrow, 338; Slate-colored Junco, 103; Cardinal, 84 (the last four species mentioned were invariably found together in large flocks); Black-capped Chickadee, 30. Total, 12 species, 708 individuals (besides 5 Hawks unidentified).—EDWARD YODER and PAUL BENDER.

Lawrence, Kans.—Dec. 26; 9.30 A.M. to 3 P.M. Clear, bright sunlight; scattered patches of snow but ground practically bare. Mild south wind; temp. 30° to 35°. Loop east, south, and west of city covering about 20 miles. Marsh Hawk, 1; Red-shouldered Hawk, 2; Sparrow Hawk, 2; Screech Owl, 1; Great Horned Owl, 1; Hairy Woodpecker, 14; Downy Woodpecker, 6; Red-bellied Woodpecker, 5; Flicker, 2; Prairie Horned Lark, 5; Blue Jay, 3; Crow, 23; Meadowlark, 75; Harris's Sparrow, 16; White-crowned Sparrow, 2; Tree Sparrow, 98; Slate-colored Junco, 212; Song Sparrow, 15; Cardinal, 12; Brown Creeper, 1; Nuthatch, 1 (call heard); Tufted Titmouse, 7; Chickadee, 177. Total, 23 species, 681 individuals. Doves have been reported within the last week.—MR. and MRS. C. I. REED.

Fayetteville, Ark. (city limits to White River on the south, covering brush and pasture land and along river in heavier timber).—Dec. 26; 9 A.M. to 1 P.M. Clear at start; partly cloudy at finish; ground bare; no frost; maximum temp. 56°; eight miles on foot. Observers together.

Green-winged Teal, 4; Bob-white, 9; Harlan's Hawk, 3; Red-tailed Hawk, 3; Red-shouldered Hawk, 1; Sparrow Hawk, 1; Screech Owl, 1; Downy Woodpecker, 3; Red-bellied Woodpecker, 1; Flicker, 7; Blue Jay, 9; American Crow, 12; Red-winged Blackbird, 5 (also flock of 500 estimated); Meadowlark, 10; Bronzed Grackle, 13; Goldfinch, 6; Vesper Sparrow, 3; Harris's Sparrow, 8; White-throated Sparrow, 5; Tree Sparrow, 10; Junco, 50; Song Sparrow, 23; Fox Sparrow, 8; Towhee, 8; Cardinal, 12; Migrant Shrike, 1; Mockingbird, 1; Carolina Wren, 3; White-breasted Nuthatch, 3; Tufted Titmouse, 6; Carolina Chickadee, 7; Bluebird, 12. Total, 32 species, about 748 individuals. Identification of Harlan's Hawk quite satisfactory.—ALBERT LANO, T. L. BATES, ALBERT and HERMAN GOY, and ORRIN HENBEST.

Topeka, Kans.—Dec. 27; 8.45 A.M. to 5 P.M. Hazy; faint north wind; ground bare; ponds and creeks frozen; temp. 25° to 38°. Covered about 12 miles in car and on foot. Wooded creeks and prairies south and west of town, and two evergreen clumps. Observers together most of time. Mourning Dove, 4; Marsh Hawk, 1; Cooper's Hawk, 1; Red-tailed Hawk, 1; Rough-legged Hawk, 3; Hawks unidentified, 4; Short-eared Owl, 5; Great Horned Owl, 1; Hairy Woodpecker, 5; Downy Woodpecker, 7; Yellow-bellied Sapsucker, 1; Red-bellied Woodpecker, 6; Flicker, 2; Prairie (?) Horned Lark, 1; Blue Jay (heard unmistakably), 1; Crow, 12; Meadowlark, 24; Goldfinch, 2; Harris's Sparrow, 18; Tree Sparrow, 219 (est.); Junco, 92 (est.); Song Sparrow, 7; Cardinal, 16; Carolina Wren, 1; White-breasted Nuthatch, 1; Red-breasted Nuthatch, 3; Tufted Titmouse, 10; Chickadee, 16; Golden-crowned Kinglet, 2; Townsend's Solitaire, 1. Total, 29 species, 467 individuals. One or two Solitaires have been identified by Sidney Hyde in four out of the past six winters, including the present one. Excellent views through strong glasses were obtained.—PROF. R. H. KINGMAN, CLETUS BUEHRER and SIDNEY HYDE.

Norman, Okla.—Dec. 26; 8.20 A.M. to 12.20 P.M. and 2 to 4.30 P.M. Clear; ground bare; wind south; temp. 28° at start, 46° at return. Eight miles on foot and 16 miles in automobile. Observers together. Bob-white, 10 (1 covey); Mourning Dove, 2; Marsh Hawk, 5; Cooper's Hawk, 1; Red-tailed Hawk, 2; American Rough-legged Hawk, 6; Hawks (sp.?), 3; Barn Owl, 1; Short-eared Owl, 1; Screech Owl, 1; Hairy Woodpecker, 3; Downy Woodpecker, 13; Yellow-bellied Sapsucker, 3; Red-bellied Woodpecker, 7; Flicker, 33; Red-shafted Flicker, 2; Blue Jay, 6; Crow, 600; Western Meadowlark, 74; Brewer's Blackbird, 300; Blackbirds (sp.?) 100; Purple Finch, 6; Goldfinch, 34; Western Savannah Sparrow, 4; Harris's Sparrow, 280; White-crowned Sparrow, 6; Field Sparrow, 77; Junco, 160; Song Sparrow, 57; Lincoln Sparrow, 1; Fox Sparrow, 12; Arctic Towhee, 30; Cardinal, 105; White-rumped Shrike, 4; Mockingbird, 3; Carolina Wren, 9; Texas Wren, 9; Tufted Titmouse, 20; Plumbeous Chickadee, 90; Bluebird, 18. Total, 38 species, over 2,000 individuals.—MARGARET M. and L. B. NICE.

Georgetown, Texas.—Dec. 23; 8 A.M. to 2 P.M. Very cloudy; slight south wind; temp. 67° at start, 72° at finish. Forty miles, mostly in automobile, partly on foot. Mallard Duck, 6; Blue-winged Teal, 5; Coot, 2; Bob-white, 40; Mourning Dove, 13; Turkey Vulture, 7; Sparrow Hawk, 14; Screech Owl, 1; Downy Woodpecker, 1; Yellow-bellied Sapsucker, 1; Red-bellied Woodpecker, 2; Red-shafted Flicker, 1; Blue Jay, 4; American Crow, 3; Meadowlark, 170; Lark Sparrow, 21; Field Sparrow, 27; Cardinal, 8; Loggerhead Shrike, 21; Mockingbird, 11; Tufted Titmouse, 5; Black-capped Chickadee, 9; Ruby-crowned Kinglet, 8; Robin, 3. Total, 24 species, 382 individuals.—FREDERICK D. AMES.

Haskell, Texas.—Dec. 24; 1.30 to 6.30 P.M. Clear; wind north, light; temp. 45° at start, 30° at return. Eight miles southwest and back; 15 miles in car, 6 miles on foot. Alone. Bob-white, 32; Scaled Partridge, 7; Mourning Dove, 21; Swainson's Hawk, 1; other Hawks (supposed to be Cooper's; not positively identified), 3; Sparrow Hawk, 1; Downy Woodpecker, 1; Golden-fronted Woodpecker, 3; White-necked Raven, 6; Meadowlark, 263; White-crowned Sparrow, 2; Field Sparrow, 35; Fox Sparrow, 11; Lark Bunting, 28; White-rumped Shrike, 4. Total, 15 species, 418 individuals.—W. E. SHERRILL.

Boulder, Colo.—Dec. 21; 7.30 A.M. to 6.20 P.M. Weather, below 6,500 feet, fog, mist frozen $\frac{1}{4}$ to $\frac{1}{2}$ in. on trees and rocks; light east winds, temp. 22°. Above 6,500 ft., clear;

strong west winds; temp. 40° to 50°; old snow melting. To Bear Cañon, up cañon to Denver Power Company's reservoir, west along ridge to a point 2 miles above Boulder Falls, down cañon to Boulder; 27 miles on foot. Alpine Three-toed Woodpecker, 1; Red-shafted Flicker, 1; Magpie, 9; Long-crested Jay, 7; White-necked Raven, 2; Piñon Jay, 1; Gray-crowned Leucosticte, 1; Pine Finch, 1; White-winged Junco, 2; Slate-colored Junco, 13; Shufeldt's Junco, 5; Montana Junco, 2; Pink-sided Junco, 8; Gray-headed Junco, 6; Long-tailed Chickadee, 6; Mountain Chickadee, 8; Western Robin, 1. The White-necked Raven was studied at a distance of 12 paces with good field-glasses. White patch was plainly visible on back of neck. Total, 17 species, 76 individuals.—THEODORE R. BEARD.

Denver, Colo.—Dec. 25; 10 A.M. to 12 M., and 2.30 to 5 P.M., by motor, and 12.15 to 1.15 P.M. afoot in Cheesman Park. Partly cloudy; 3 in. snow; wind south, mild; temp., 8 A.M., 10° and 5 P.M., 32°. Wilson Snipe, 1; Killdeer, 1; Ring-necked Pheasant, 16; Mourning Dove, 2; Marsh Hawk, 2; Western Red-tailed Hawk, 1; American Rough-legged Hawk, 1; Great Horned Owl, 1; Orange-shafted Flicker, 4; Horned Lark, 160; Magpie, 115; Red-winged Blackbird, 1,500 (plus or minus); Western Meadowlark, 68; House Finch, 17; Western Tree Sparrow, 125; Shufeldt's Junco, 12; Pink-sided Junco, 1; Grey-headed Junco, 2; Song Sparrow, 12. Total, 19 species and subspecies, and (about) 2,100 individuals.—W. H. BERGTOLD.

Rocky Ford, Colo. (west along Arkansas River).—Dec. 25; 8.30 A.M. to 3 P.M. Partly cloudy; wind east; temp. 25° at start, 42° at return. Green-winged Teal, 2; Western Mourning Dove, 8; Marsh Hawk, 1; Sharp-shinned Hawk, 1; Desert Sparrow Hawk, 4; Short-eared Owl, 1; Western Horned Owl, 1; Red-shafted Flicker, 10; Saskatchewan Horned Lark, 40; Magpie, 50; Red-winged Blackbird, 1,000; Western Meadowlark, 22; House Finch, 45; Goldfinch, 5; Pine Siskin, 1; Lapland Longspur, 15; Gambel's Sparrow, 75; Western Tree Sparrow, 500; Slate-colored Junco, 1; Shufeldt's Junco, 4; Pink-sided Junco, 65; Mountain Song Sparrow, 30; Western Marsh Wren, 6. Total, 23 species, about 1,887 individuals. The Marsh Wren is *Telmatodytes palustris*, subspecies undetermined, but the form which winters here. All identifications made with 8-power binoculars.—CLARENCE E. MICKEL.

Calgary, Alberta (down Bow Valley from city limits).—Dec. 26; 11.40 A.M. till dark, 5.30 P.M. Clear and calm; ¼ in. of snow on prairie, 3 in. among the brush; temp. at start 7°, at return 6°. Covering about 5 miles on foot. American Merganser (female), 1; Mallard (male), 1; American Golden-eye, 4; Sharp-tailed Grouse, 16; Hungarian Partridge, 52+ (6 coveys); Hairy Woodpecker, 1; Downy Woodpecker, 13; Magpie, 150+; Redpoll, 5; Snow Bunting, 1; Chickadee, 24. Total, 11 species, about 268 individuals. Seen recently, a few Pine Grosbeaks and 1 Bohemian Waxwing.—PERCY L. CUSTANCE.

Okanagan Landing, B. C.—Dec. 23, 9 A.M. to 3.30 P.M. Fine; 1 in. snow; wind northeast, light; temp. at start 3°, at return 8°. Twelve miles on foot. Horned Grebe, 3; Loon (common?) 1; Herring Gull, 17; Merganser, 6; Mallard, 30 (est.); Scaup, 25 (est.); Ring-necked Pheasant, 1; American Golden-eye, 7; Bufflehead, 5; Coot, 3,000 (est.); Wilson's Snipe, 1; Pheasant, 4 (hybrids *torquatus* × *mongolicus*; Columbian Sharp-tailed Grouse (tracks of), 8; Sparrow Hawk, 1 (first winter record for many years); Northwest Flicker, 2; Black-headed Jay, 5; Magpie, 7; Western Meadowlark, 4; Rocky Mountain Pine Grosbeak, 12; Redpoll, 1; Pallid Goldfinch, 5; Shufeldt's Junco, 14; Slate-colored Junco, 2; Song Sparrow (Merrill's?), 3; Bohemian Waxwing, 75; Long-tailed Chickadee, 2. Total, 27 species, 3,259 individuals. Also English Sparrow, 18. Seen within the last week: Western Grebe, Holboell's Grebe, Canvasback, Redhead, Ruffed Grouse, Short-eared Owl, Kingfisher, Western Evening Grosbeak, Western Tree Sparrow, Slender-billed Nuthatch, Red-bellied Nuthatch, Mountain Chickadee, Water Ouzel.—ALLAN BROOKS.

Olympia, Wash.—Dec. 23, 9 A.M. to 4 P.M. Cloudy; 3 in. of snow; no wind; temp. at start 32°, at return 38°. Two observers together. From Olympia to Black Hills and back, about 18 miles, in car to Black Hills and then a walk of 5 or 6 miles. Western Grebe, 3; Horned Grebe, 1; Guillemot, 2; Glaucous-winged Gull, 300; Herring Gull, 100; other Gulls (California?), 100; Red-breasted Merganser, 50; American Scaup (est.), 2,000; American Golden-

eye (est.), 1,000; Great Blue Heron, 3; California Quail, 12; China Pheasant, 3; Kingfisher, 1; Gairdner's Woodpecker, 3; Northwestern Flicker, 4; Steller's Jay, 3; Northwestern Crow, 50; Meadowlark, 1; Brewer's Blackbird, 50; Junco, 14; Rusty Song Sparrow, 5; Chewink, 5; Winter Wren, 18; Nuthatch, 1; Oregon Chickadee, 1; Chestnut-backed Chickadee, 2; Golden-crowned Kinglet, 16; Ruby-crowned Kinglet, 1; Varied Thrush. Total, 29 species, about 3,749 individuals.—MARGARET MCKENNY and JOHN M. WILSON.

Spokane, Wash.—Dec. 23; 9.30 A.M. to 5 P.M. Sunshine; 1 in. snow; light wind, south. Temp. 20° at start, 25° at return. To Manito and south city limits; across Latah Creek valley; up Garden Springs Creek to head; down Indian Creek and back to city. Ten miles on foot. Bob-white [introduced], 10; Western Horned Owl, 1; Northern Pileated Woodpecker, 1; Red-shafted Flicker, 5; Magpie, 6; Crossbill, 10; Redpoll, 25; Pine Siskin, 50 (est.; 1 flock), mixed with some Willow Goldfinches; Oregon Junco, 8; Merrill Song Sparrow, 3; Bohemian Waxwing, 1,000 (est.; 1 large flock); Western Winter Wren, 1; Red-breasted Nuthatch, 12; Pygmy Nuthatch, 38; Oregon Chickadee, 1; Mountain Chickadee, 2; Western Robin, 10; Western Bluebird, 5; Total, 19 species, about 1,180 individuals.—WALTER BRUCE (President Spokane Bird Club) and PROF. J. L. SLOANAKER.

Olympia, Wash. (Olympia to Priest Point Park and back).—Dec. 24; 8.30 A.M. to 5 P.M. Weather clear, tending to be slightly cloudy; 2 in. of old snow on ground; no wind; temp. 28° at start, 36° at return. Horned Grebe, 40; Glaucous-winged Gull, 50; Short-billed Gull, 50; Red-breasted Merganser, 30; Baldpate, 4; Canvasback, 25; Scaup, 500; American Golden-eye, 30; White-winged Scoter, 200; Ruddy Duck, 10; Fannin's Heron, 1; Coot, 30; Wilson's Snipe, 1; Killdeer, 1; Mountain Quail, 8; Sharp-shinned Hawk, 1; Kingfisher, 3; Harris's Woodpecker, 3; Gairdner's Woodpecker, 1; Northwestern Flicker, 30; Steller's Jay, 1; Northwestern Crow, 60; Northwestern Redwing, 60; Western Meadowlark, 1; Brewer's Blackbird, 100; California Purple Finch, 15; Pine Siskin, 150; Oregon Junco, 100; Rusty Song Sparrow, 12; Kadiak (?) Fox Sparrow, 3; Oregon Towhee, 7; Seattle Wren, 10; Western Winter Wren, 70; California Creeper, 4; Red-breasted Nuthatch, 1; Oregon Chickadee, 11; Chestnut-backed Chickadee, 5; Western Golden-crowned Kinglet, 75; Sitkan Kinglet, 10; Western Robin, 20; Western Bluebird, 5. Total, 41 species, about 1,738 individuals.—THOR MCKNIGHT.

Portland, Ore.—Dec. 26; 9.30 A.M. to 4.30 P.M. Cloudy; light sleet at start; ground covered with light snow; brisk east wind; temp. about 33°. Pied-billed Grebe, 2; Glaucous-winged Gull, 1; Western Gull, 12; Herring Gull, 25; Hooded Merganser, 6; Baldpate, 18; Blue-winged Teal, 3; Shoveler, 12; Pintail, 100; Canvasback, 2; Greater Scaup, 25; Lesser Scaup, 50; Bufflehead, 20; Coot, 15; Killdeer, 2; Ring-necked Pheasant, 2; Western Red-tailed Hawk, 1; Desert Sparrow Hawk, 1; Gairdner's Woodpecker, 1; Red-breasted Sapsucker, 1; Red-shafted Flicker, 4; Western Crow, 3; California Purple Finch, 3; Oregon Junco, 45; Rusty Song Sparrow, 6; Oregon Towhee, 5; Western Winter Wren, 1; Oregon Chickadee, 25; Chestnut-backed Chickadee, 15; Ruby-crowned Kinglet, 1; Western Robin, 3; Varied Thrush, 5. Total, 33 species, 428 individuals.—W. A. ELIOT, W. S. and MARY E. RAKER, ARLIE SEAMAN.

Monmouth, Ore.—Dec. 24; 7.30 to 10.30 A.M. and 2 to 3.30 P.M. North wind, light; temp. 10° at start, 33° at return. Six miles on foot. Wilson's Snipe, 4; Killdeer, 11; Ring-necked Pheasant, 2; Band-tailed Pigeon, 1; Desert Sparrow Hawk, 1; Gairdner's Woodpecker, 2; Red-shafted Flicker, 10; Northwestern Crow, 17; Western Meadowlark, 23; Brewer's Blackbird, 68; Willow Goldfinch, 9; Gambel's White-crowned Sparrow, 2; Oregon Junco, 78; Rusty Song Sparrow, 9; Oregon Towhee, 2; Audubon Warbler, 1; Slender-billed Nuthatch, 2; Oregon Chickadee, 3; Western Robin, 1; Western Bluebird, 5. Total, 21 species, 196 individuals. Also 21 House Sparrows.—CECIL A. POOLE.

Santa Barbara, Calif. (Mission Canon, Sheffield Reservoir, Hope Ranch, tide flats near Goleta).—Dec. 24; 6.30 A.M. to 5.30 P.M. Light rain till 8.30 A.M., remainder of day heavily overcast; the seventh day of a continuous storm after an almost unbroken drought of nine months; calm; temp. 50° to 60°. Distance of course 30 miles; diameter 8 miles; 12 miles

afoot; remainder by automobile. Western Grebe, 7; Pied-billed Grebe, 1; Pacific Loon, 3; Glaucous-winged Gull, 10; Western Gull, 500; Herring Gull, 11; California Gull, 1,300; Ring-billed Gull, 40; Short-billed Gull, 8; Heermann's Gull, 8; Bonaparte's Gull, 180; Royal Tern, 15; Forster's Tern, 6; Farallone Cormorant, 1,200; Brandt's Cormorant, 700; Baird's Cormorant, 2; California Brown Pelican, 120; Red-breasted Merganser, 2; Mallard, 2; Shoveller, 40; Pintail, 60; Canvasback, 60; Lesser Scaup, 150; White-winged Scoter, 60; Surf Scoter, 80; Ruddy Duck, 160; California Great Blue Heron, 7; American Coot, 120; Least Sandpiper, 15; Sanderling, 1; Killdeer, 20; Snowy Plover, 40; Spotted Sandpiper, 3; Valley Quail, 3; Mourning Dove, 39; Sharp-shinned Hawk, 4; Cooper's Hawk, 1; Western Redtail, 5; Duck Hawk, 1; Sparrow Hawk, 5; California Screech Owl, 1; Burrowing Owl, 1; Kingfisher, 3; California Woodpecker, 47; Lewis's Woodpecker, 1; Red-shafted Flicker, 40; Anna's Hummer, 7; Say's Phoebe, 6; Black Phoebe, 11; California Horned Lark, 7; California Jay, 20; San Diego (?) Redwing, 3,700; Western Meadowlark, 300; Brewer's Blackbird, 700; House Finch, 150; Green-backed Goldfinch, 20; Willow Goldfinch, 3; Western Lark Sparrow, 1; Western Savannah Sparrow, 10; Belding's Marsh Sparrow, 3; Gambel's Sparrow, 250; Nuttall's Sparrow, 20; Golden-crowned Sparrow, 120; Sierra Junco, 10; Rufous-crowned Sparrow, 1; San Diego Song Sparrow, 16; Valdez Fox Sparrow, 1; San Diego Towhee, 12; Anthony's Towhee, 40; California Shrike, 6; Hutton's Vireo, 1; Dusky Warbler, 7; Audubon's Warbler, 175; Tule Yellow-throat, 7; Pipit, 30; Western Mockingbird, 2; California Thrasher, 4; San Diego Wren, 1; Western House Wren, 3; Tule Wren, 6; Plain Titmouse, 15; Pallid Wren-tit, 20; Coast Bush-tit, 400; Western Ruby-crowned Kinglet, 45; Western Gnatcatcher, 14; Dwarf Hermit Thrush, 16; Western Robin, 40; Western Bluebird, 12. Total, 88 species; 11,305 individuals.—W. LEON, and WILLIAM OBERLIN DAWSON.

Mayaguez, Porto Rico (hill country in A.M., swampland in P.M.).—Dec. 18; 7.10 A.M. to 12.30 P.M., and 3.15 to 6 P.M. Fair in A.M., tropical showers in the P.M.; temp. 78° to 86°. Fourteen miles on foot. Observers together. Cuban Green Heron, 4; Little Blue Heron, 10; Snowy Egret, 2; Porto Rican Sparrow Hawk, 3; Ruddy Turnstones, 9; Porto Rican Ground Dove, 1; Mangrove Cuckoo, 1; Ani, 5; Porto Rican Woodpecker, 6; Porto Rican Tody, 5; Fork-tailed Hummingbird, 1; Gray Kingbird, 21; Porto Rican Petchary, 13; Porto Rican Wood Pewee, 2; Jamaican Cliff Swallow, 11; Jamaican Mockingbird, 6; Latimer's Vireo, 1; American Redstart, 8; Waterthrush, 1; Louisiana Waterthrush, 3; Prairie Warbler, 3; Adelaide's Warbler, 2; Northern Parula Warbler, 1; Black-and-White Warbler, 3; Porto Rican Honey Creeper, or Bananaquit, 68; Hooded Weaver Finch, 11; Yellow-shouldered Blackbird, 470; Porto Rican Oriole, 1; Porto Rican Blackbird, 18; Porto Rican Spindalis, 8; Porto Rican Grosbeak, 9; Carib Grassquit, 9; Bryant's Grassquit, 4. Total, 33 species, 720 individuals.—RALPH E. and STUART T. DANFORTH.



THE SEASON

XXIX. October 15, 1921 to December 15, 1921

BOSTON REGION.—A mild, pleasant autumn was suddenly terminated on November 27 by the most destructive ice-storm remembered in this vicinity. For three days and nights branches of trees, bent beyond the breaking-point by an ever-increasing burden of ice, were ripped away, and even the trunks in some cases were riven to the ground as if by lightning. After the release by thaw on November 30, the whole region called to mind pictures of country swept by shell-fire. For years the damage to the shade trees will be apparent to visitors to Lexington and surrounding towns, because, in addition to the present destruction, the wholesale tearing away of branches has opened the way, it is feared, for infection and further loss by disease. During this storm the birds suffered surprisingly little. Often when passing an ice-bound evergreen tree, we heard the notes of Chickadees and Golden-crowned Kinglets. The little birds were safe and happy; wholly concealed among the branches, they were exploring for food in a labyrinth of recesses and were meanwhile protected from any enemy on the outside by an armor of ice. Snow and cold weather followed the ice-storm and now, at the close of the period, we are in the grip of winter.

Small flocks of Pine Grosbeaks appeared early in November; they failed to settle down as they often do, but soon disappeared from this immediate vicinity, their departure being due, perhaps, to the smallness of the crop of their favorite food, the seeds of the white ash tree. While here the birds were seen to eat ragweed seeds, but were noted most frequently eating the seeds of small apples. A month later Evening Grosbeaks arrived, but in no great numbers, and these birds also apparently did not linger, for the species is now not well represented in the region. A few Redpolls have been noted.

Of the regular winter birds, Tree Sparrows are present in numbers *well above* the average (this may be a local condition), Chickadees and Golden-crowned Kinglets in normal

numbers—flocks of six to twelve can be found daily in suitable localities—Brown Creepers are now (December 15) frequently met with (perhaps late migration) and the Hairy Woodpecker, usually not a common bird, is locally conspicuous.

Northern Shrikes are as common this winter as local observers have ever seen them. It is the habit of the bird in this latitude to settle in the autumn at some definite station which suits his fancy—an apple orchard or a sparsely wooded pasture affording good look-out posts—and remain there in solitude and complete silence until spring. Apparently Shrikes do not wander far from their headquarters until after a brief song period; they leave for the north in April.—WINSOR M. TYLER, *Lexington, Mass.*

NEW YORK REGION.—Some years, open weather is succeeded abruptly by winter storms, rain or snow alternating with icy blasts from the northwest. Up to the close of this period no such condition has prevailed, but fall has dipped so gradually into winter that one scarcely realizes there have been sharp nights, below 20 degrees, and one snowstorm on December 4 which was more than a mere flurry.

The most striking ornithological feature has been the very unusual frequency of the Northern Shrike. At Garden City, Long Island, the first was seen on October 30, and this morning (December 19) a gray adult, and then a brownish young bird, were observed near the beginning and end of a mile or two's walk, before taking the train for town. The latter of these two individuals, at least, seems a bird that has settled down for a prolonged stay, for such a bird is encountered near the same spot every few days. One morning in early December it was heard to give a few grating, scolding notes. On November 20, a Northern Shrike in a treetop was singing a continuous song, in short phrases, some unmusical, others decidedly sweet, none very loud, suggesting

a performance of the Catbird. So much for the vocal powers of this usually silent morose species.

There has also been more than the usual influx of Long-eared and Saw-whet Owls. On December 9, the writer was called in to verify the identity of one of the latter discovered by Miss B. S. Miller, over a back yard in the heart of New York City. It was sitting in the sun on top of a projecting blind, almost within reach as he leaned from a second-story window to look at it. For a brief moment its big yellow eyes opened in an owl's stare, and then it relapsed again into drowsy somnolence.

As regards wandering northern Finches, very few have reached us. At Rhinebeck, up the Hudson, on the other hand, Pine Grosbeaks came early and have been constantly present; Redpoll and Evening Grosbeak were reported later (M. S. Crosby). This augurs well for a chance at some of these interesting birds nearer New York later in the winter. As a matter of fact, a single Pine Grosbeak was observed flying over at Garden City, December 3, and there are one or two other creditable reports of that species near New York.

A Catbird is reported at the Bronx Botanical Garden, December 11 (F. F. Houghton). A flock of Grackles, up to thirty birds, was frequently observed at Upper Montclair, N. J., as late as December 16 (R. H. Howland).

Certain of Mr. Howland's banding returns at Upper Montclair are of seasonal interest. A Song Sparrow (No. 44699) was taken in his traps October 27, and six times thereafter this fall, a bird which had last been taken March 6, its thirteenth visit since the preceding fall. Contrasted with this is another Song Sparrow (No. 47143) taken twenty-nine times from April 12 to October 16, 1921, and absent since that date. A Junco (No. 45740) banded November 28, 1920, was retaken in the same trap, October 15, 1921.

Bird-life during the present period is of interest for the light it may throw on data furnished by the census at the close of December. The season has been mild, and if it is reflected in the bird-life, such species

as Blackbirds and Hermit Thrushes will be found wintering. In general, land-birds have become exceedingly scarce, and the total counts may be expected to be low unless, for some reason, winter birds come down from the North in numbers during the next week.—J. T. NICHOLS, *New York City*.

PHILADELPHIA REGION.—With the exception of November 18 and 19, when the temperature soared to 75°, weather conditions for this region averaged normal. Seasonable easterly storms occurred during the latter part of November and first week of December.

Throughout October, and until the second week in November, immature Laughing Gulls, which as a rule occur very sparingly in the fall on the Delaware River, were present in unusual numbers, from ten to twenty of these Gulls being no uncommon sight while crossing the river. With the appearance of the Herring Gulls (first noted October 27), the smaller species commenced to thin out and were last observed November 10).

The plight of a Duck Hawk observed at Cape May, October 30, shows at least that this Falcon is sometimes unfortunate in his pursuit of prey. On being informed by the lighthouse tender that he had seen a rather large bird with a curved bill floundering around in the mud on the edge of a nearby pond, investigation was made, and said Hawk was found sitting on the top of a post in a very much bedraggled condition, with drooping wings half extended, evidently drying off. On close approach the bird made several feints, and then took wing and made off with great difficulty and considerable noisy flapping. The Duck Hawk when first found was so wet and muddy that it was unable to fly and so helpless that the tender could have caught it had he been so disposed.

The writer spent November 20 in the field with Mr. Nelson Pumyea at Mt. Holly, N. J. Thirty-five species of birds were noted, among them being a full-plumaged male Evening Grosbeak and a Mockingbird. According to Mr. Pumyea, this is the first time to his knowledge, that the Mockingbird

has been recorded at Mt. Holly. A more or less systematic count was made of the Crows coming into the Mt. Holly Crow-roost, which reached a total somewhere between 10,000 and 12,000 birds. This seems to be one of the few remaining populous Crow-roosts in southern New Jersey.

Other noteworthy winter birds occurring this season are Shrikes (probably both Northern and Migrant), Saw-whet Owls, and Siskins, the last quite abundant.

A few statements regarding the great abundance of Ducks and Geese on the New Jersey coast will not come amiss at this time. Gunners say 'thousands', 'rafts,' etc. Mr. S. C. Kimble, who spent a few days along the shores of Barnegat Bay the first week in December, said that he saw one flock of ducks which contained at least 5,000, and a flock of Canada Geese that contained 1,000, which rose from the water with a 'thunderous roar.' On December 4, in a walk along the beach from Sea Isle City to Corson's Inlet, N. J., six 'rafts' of Ducks (mostly Black, resting on the ocean just beyond the breakers) were seen. These 'rafts' contained anywhere from 500 to 1,000 birds apiece. White-winged Scoters were present in hundreds; 5 Bufflehead and 2 Ruddy Ducks were noted. At this time, also, 5 Sanderling, 10 Black-breasted Plover and a flock of 30 or more Red-backed Sandpipers were observed.—JULIAN K. POTTER, *Camden, N. J.*

WASHINGTON REGION.—The seasonal ebb and flow of bird-life is one of the most attractive phases of bird-study. Nor is this attractiveness much the less because observations are limited to a restricted region. Here at Washington, although we are, as is well known, on a tributary of the main stream of north and south bird migration that flows along the Atlantic Coast, there are, nevertheless, some interesting features. One of these is the comparison of the bird movements of one year with those of another, and again with what might be termed the average, or better, the normal year, a criterion obtained from a long series of yearly observations.

From the height of migration in September

the tide at Washington gradually subsides through October and November, until by the last of the latter month practically all our summer residents and transients have passed southward. Meanwhile, beginning in September, the influx of our winter residents takes place, and by the last of October all are here except a few which do not usually put in their appearance until the first week of November.

This year's (1921) bird-life has been about normal during October and November. The regular winter residents, such as the Rusty Blackbird, Purple Finch, White-throated Sparrow, Golden-crowned Kinglet, Brown Creeper, and Winter Wren, have put in their appearance as usual. The Red-breasted Nuthatch, while present, was apparently not as common as it ordinarily is, and the Carolina Wren, a permanent resident, seems not yet fully to have recovered its former numbers.

The generally mild weather that has prevailed during these two months might have been responsible for the early arrival of the Fox Sparrow, which was seen on October 9 by Dr. A. K. Fisher at Plummer Island, Md., nineteen days ahead of its normal arrival, a record almost equal to its earliest appearance October 3, 1906. Similarly, the Slate-colored Junco, which was seen by B. H. Swales at Chevy Chase, Md., on October 3, was in advance of its regular date of appearance, which is October 7.

Likewise, the lack of severe cold weather induced some species to remain rather longer than common. Such are the House Wren, seen on October 23 by Dr. A. Wetmore at Plummer Island, Md., a week beyond its usual time of October 16, and the Solitary Sandpiper, noted by the same observer at Dyke, Va., October 22, twenty days later than usual. One species, the Canada Warbler, was observed at Plummer Island, Md., by Dr. A. Wetmore on October 23, and was thus several days beyond its previously latest date of October 11, 1908.

The Pileated Woodpecker was again seen by Dr. A. K. Fisher at Plummer Island, Md., on October 2, possibly the same individual as the one previously reported by him on September 11.

Ducks and Geese have appeared, and indications are that their numbers will be as satisfactorily large during the coming winter as they have been for two or three years past, with the possibility of even further increase in numbers.—HARRY C. OBERHOLSER, *Biological Survey, Washington, D. C.*

OVERLIN (OHIO) REGION.—The weather has continued mild, with no snow at any time of sufficient depth or duration to have any effect on the birds. A considerable company of Chimney Swifts was present on October 15, and a few were seen up to the 18th, when a storm of three days' duration began. None were seen after the storm. An interesting thing about this company of Swifts was that about the first of October they left the chimneys that they had been using for roosting-places and repaired to the cemetery, where they seemed to be roosting at night in some Scotch pine trees. Certainly there was no chimney that they could have used there. The first week in November, White-winged Crossbills and a single Pine Grosbeak came and remained for several days. Never before have these two species been seen in this region, except in unusually cold and snowy winters. What drove them South? By November 20 the birds had settled down to winter conditions, and there has been nothing out of the normal to report since. There is an occasional Robin and Bronzed Grackle, and, of course, Ducks are still to be found in the vicinity of Lake Erie.—LYNDS JONES, *Oberlin, Ohio.*

CHICAGO REGION.—The recent period has been marked by much stormy weather, snow, and rain, but with very few days below freezing. The last of the migrants left early in November and a number of species from the North have arrived.

The last Warblers reported were a Tennessee and a Nashville on October 12, and a Black-throated Green on the 20th in Jackson Park; a Myrtle on the 15th and a Palm on the 16th at Waukegan, and an Ovenbird at Austin on the 23d. Sanderlings and Red-backed Sandpipers stayed until November 2, and Wilson's Snipe were reported from the Dunes the 9th, and from

Highwood the 11th. A Phoebe was seen in Jackson Park October 20. The first week in November saw the last of the Sparrows on their way South.

Wm. I. Lyons, of Waukegan, took an immature Harris' Sparrow in a trap October 12, which was banded and released. It remained about his yard until the 30th and during that time was taken in traps thirty-two different times.

Snow Buntings first appeared on October 20 and again on the 23d and the 30th; Pine Siskins, October 21 and Redpolls, November 13. A Pine Grosbeak was seen by Stephen S. Gregory in his yard in the city November 11. He was able to watch it closely for about twenty minutes before it flew away. A flock of seven was reported from Lake Forest, November 23, by Jesse L. Smith. P. B. Coffin saw a small flock of White-winged Crossbills at Dune Park, Ind., on October 30. It was in this same place where the last were seen two years ago. A small flock of Bohemian Waxwings were found at Beach, Ills., on December 4 by the writer. A pair were first seen and later the flock which were very restless. In 1919 on the same day, it was estimated by the writer that about 1,500 passed there during a flight of these birds.

H. L. Stoddard, of the Milwaukee Museum, spent some time in the Dunes, in Indiana, between November 10 and 20, and despite the very disagreeable weather was able to report about fifty species. The most noteworthy was a flock of about 200 Evening Grosbeaks seen November 11 at Millers and on the 19th at Mineral Springs, feeding on the flowering dogwood. Other records are: Red-throated Loon, and Fox Sparrow at Tremont, November 10; and at Mineral Springs Saw-whet Owl, November 12; Redpolls and Siskins, the 19th; and Robins and Bluebirds the 9th and three Robins again on the 19th.

Other rare and unusual visitors are: White Pelican, found dead on the beach at Dune Park, Indiana, on October 23, by members of the Chicago Camera Club, who took a number of pictures of the bird which are conclusive proof of the record. G. W. Lewis and James Watson found a Jaeger at

Lincoln Park October 16. They spent some time watching the bird which was identified as a Pomarine. They also reported a small flock of Lapland Longspurs the same day. The Longspurs were seen again (November 1,) by B. T. Gault in Grant Park, together with many Snow Buntings and a small flock of Horned Larks (*alpestris* proper). Jess L. Smith reported a Saw-whet Owl found dead in Highland Park November 7, and a Greater Scaup, the 16th.

The Society closes this year's migration report with 240 species having been identified by the members in this region.—COLIN CAMPBELL SANBORN, *Chairman, Report Committee, Chicago Ornithological Society*.

MINNESOTA REGION.—The mild weather of early October continued throughout the remainder of the month, with a number of beautiful, hazy, Indian Summer-like days when the mid-day temperatures reached 60 to 68 degrees. Very little rain fell, and the month was recorded as one of the driest Octobers for many years. The first "killing frost" in the vicinity of Minneapolis did not occur until November 1, making the longest 'growing season' (197 days) recorded here for fifty years. The usual date is between October 3 and 10. Mild days followed until, on November 7, came the first real winter weather ushered in by a snowstorm. From this date until the 23d, snow fell almost daily, the aggregate amount being 18.5 inches, 4.1 inches more than had ever been recorded previously for November at Minneapolis. The total for the whole winter last year was 20 inches. The coldest day for the season thus far was on November 20, when the mercury fell to minus 4 degrees at Minneapolis. On the 21st the temperature at Duluth was minus 5 degrees and at Grand Forks minus 8 degrees, with nearly zero records in southern Minnesota. Thus, the month of November was marked by the greatest fall of snow for that month in the history of the local weather bureau, and it seemed as though winter had come down upon us in earnest. But the 'cold snap' was followed immediately by milder days, and the month ended with a warm, almost spring-like day

when the snow melted rapidly. There has been no cold weather since and the ground is almost clear of snow. The larger lakes have been frozen only partially until quite recently and considerable areas of open water have induced small flocks of the hardier Ducks and a few Herring Gulls to remain until nearly the present date.

Conditions thus far suggest another open winter like last year.

The most notable ornithological happening of the last two months has been a remarkable visitation of Magpies into the state from the West. The records received thus far number more than half of the total for all previous years and without doubt there are many more still to be heard from. We have reports from nine different localities, widely separated but all in the southern half of the state. The number of individuals seen is thirty-four. The earliest report was for October 10, from Ivanhoe, Lincoln County, near the South Dakota line, where, attracted by a dead hog, ten Magpies were seen together (Mrs. J. A. Campbell). Since that date additional reports have been received from Pipestone, Lake Benton, Tyler (Peterson), and Ortonville (Chamberlain) in the western part of the state; Dundas (Avery) Dassel (Jensen), Elk River (Bailey), and Red Wing (Densmore) farther east, the last place in the Mississippi River valley on the Wisconsin line. Thus this western bird is distributed entirely across the southern part of the state.

Nearly all the usual winter visitant birds arrived in the state during late October and November.

Evening Grosbeak. Brainerd, October 15 (Mrs. Thabes); Lake Minnetonka, October 17 (Commons); Elk River, October 24 (Bailey); Miss Torgerson reports them common at Fosston, Polk County, and they have been seen regularly at Brainerd and Elk River ever since their first appearance. It, perhaps, is not quite correct to treat this bird as a winter visitant in the northern part of Minnesota as it now seems certain that it remains throughout the summer and probably breeds in the most northern counties.

Pine Grosbeak. Brainerd, Elk River and Minneapolis, mostly single birds.

Snow Bunting. Elk River, Cannon Falls (Swanson) and the Red River Valley near Crookston; common in flocks in the last locality (Miss Torgerson). The Snow Bunting is no longer a generally abundant bird in Minnesota as it was in former times.

Redpoll. Common throughout the state since early in November.

Lapland Longspur. Elk River and Pipestone (many).

Bohemian Waxwing. Elk River on November 30 and after that from Minneapolis, Cannon Falls, Pipestone, and Fairmount (Dr. Luedtke). Small flocks only have been seen.

Great Northern Shrike. Elk River October 30, Pipestone and Cannon Falls.

Snowy Owl. Only one record thus far—from McLeod County, far south in the state (Peterson).

Goshawk. Elk River, October 12 (Bailey).

Rough-legged Hawk. First seen at Elk River September 26, and on October 26 Mr. Bailey wrote "see Rough-legs every day."

Mr. Bailey reported that a flock of about 100 Swans was seen flying over Elk River on November 18.

Several Bald Eagles have been killed this fall in various parts of the state—two of them far out in the western prairie region, Rock and Norman Counties. Mr. Carlos Avery informs me that at least three Golden Eagles have also been shot. It is unfortunate that these great birds should be killed as they are getting very rare. A Golden Eagle was reported by Mr. Bailey as having been seen at Elk River on December 12.

The mild winter has induced some of the half-hardy birds to remain and so frequent mention is made of the Junco, Tree Sparrow, Brown Creeper, Blackbirds. Bailey writes that Red-headed Woodpeckers are "generally distributed" about Elk River and that "two or three can be seen during a walk of five or six miles in any direction." From Fairmount, Martin County, down on the Iowa line comes the following from Dr. G. H. Luedtke under date of December 15: "Frost all out of the ground and many of the lakes partly open at this date. About 5 inches of snow fell during November. December has been sunny and warm to date.

Meadowlarks, Juncos, Brewer's and Rusty Blackbirds are still quite common."—THOS. S. ROBERTS, *Zoological Museum, University of Minnesota, Minneapolis, Minn.*

KANSAS CITY REGION.—In late October and early November several flocks of Pipits were noted in the Missouri bottoms where this species is only occasionally seen during migration. From October 19 until late November Harris's Sparrows were increasingly abundant, but have evidently passed on through, as but a very few wintering individuals have been seen during early December. All the other large Sparrows, save the Towhee, have accompanied them. The Towhee rarely winters here, but is common enough this season up to mid-December.

Short-eared Owls appeared during the last ten days of October and are still here feeding on prairie rodents. A characteristic wave of Harris's Sparrows was noted on October 31, when for over a week these birds were drawling and clinking in hundreds from every thicket and weed-patch. On November 1 an immense flock of feeding Red-winged Blackbirds was discovered in the region of the mouth of Big Blue where they had apparently been established for some time. This flock, estimated to contain between 3,000 and 4,000 birds, evidently all females, has remained in this neighborhood for six weeks feeding on the abundant crop of weed seeds there. It will be interesting to note how long the apparently inexhaustible supply of food will sustain this horde. A series of specimens is being collected to determine the subspecies of this wintering form. Red-winged Blackbirds are also common this winter on the uplands and prairie regions, though the flocks will doubtless move on before the season of blizzards arrives. It has been noted in previous years when this region has been favored with wintering throngs of this species that the prairie-feeding flocks almost invariably fly long distances to roost in the Missouri River bottoms. From the fact of their not roosting even in large flocks this year it is presumed that these prairie birds are merely loitering here during the fine weather.

On November 1, from a station on the

Missouri River within the city limits, a count was kept, between 8 and 9:40 A.M., of passing Ducks and Geese. Twenty-seven flocks of Ducks contained 1729 individuals and six flocks of Geese were estimated to contain 525 birds. For nearly an hour after the tally was discontinued the flocks passed in an endless procession too numerous even to estimate, so that the birds recorded represent but a small fraction of the flight. Several hunters' bags examined this day contained a large ratio of Black Ducks. Andrews reported a similar flight from his station further down stream about a week later, and stated that withal the flight this year was not so impressive as last year, or even year before last. However, reports from other stations, notably Lawrence, Kans., are more encouraging.

A large flock of Rusty Blackbirds with a sprinkling of Cowbirds was seen on November 4. Red-breasted Nuthatches were noted on the 6th, and on the 7th migrating Hawks were in sight during most of the day. Killdeer were seen in Swope Park on the 22d, an unusually late date. Andrews saw Killdeer and Greater Yellow-legs on the Missouri River on the 16th, and a flight of Herring and Ring-billed Gulls on the 18th and 19th. On the 21st this observer flushed his second Woodcock of the season.

On November 20 a beautiful adult male specimen of Harlan's Hawk was killed near Kansas City and brought in to J. F. Frazier for mounting. Strangely enough on the same day another specimen was taken near Independence, only a few miles further east, and brought in to Charles W. Tindall. This specimen could not be saved, but was personally examined in the flesh. These records constitute the second and third for this immediate region. It is understood that C. D. Bunker, Curator of the Kansas University Museum, has added several records of this bird for eastern Kansas.

Mr. Tindall reports a Mockingbird and a Red-headed Woodpecker wintering near his home in Independence, Mo. Sidney Hyde, of Topeka, Kans., reports a small flock of Bohemian Waxwings and numbers of Red-breasted Nuthatches seen in his region in early December.

The outstanding feature of the current period is the very unusual abundance of Blue Jays over this entire region. Usually at this season only a few wintering birds are here and need to be hunted for in the most favorable situations. But this year they are in evidence at every turn. Meadowlarks, too, are rather more numerous than common at this season, but will doubtless move on at the approach of very cold weather, the season to date having been unseasonably mild.—HARRY HARRIS, *Kansas City, Mo.*

DENVER REGION.—The writer is like every other lover of birds, very desirous of making interesting and valuable observations about them, and anxious to share such results with his interested friends and fellow students. When eight weeks pass, as have the past two months, with an almost complete poverty of bird-life in his region, he feels as though he had been 'buncoed.' During similar periods (as this now being reported on) in years past, he has seen in the neighborhood of Denver, more than seventy different species and subspecies of birds. During the last eight weeks only eighteen species and subspecies have fallen under his notice as he has gone about in this vicinity. It is obvious that one can hardly compare a given period studied during many years, with the same period studied during one year only, yet these figures give an idea of the scarcity of birds hereabouts during the past two months.

The northern breeding Ducks were very late in arriving in our region, and were scarce even then. It was, however, like receiving a birthday or a holiday greeting to see a flock of six Snow Geese on a lake north of Denver, on October 31. There must have been a considerable flight of these Geese over the state about this time, for a flock was also noted on a lake fifty miles north of Denver on October 29, one being secured, and its head, wing and leg given to the writer. The bird proved on examination to be a Lesser Snow Goose, a species relatively common in Colorado, its larger congener, the Greater Snow Goose, being very rare in this state.

Walks through our parks and drives into the suburbs, taken at various times during

the past two months, have disclosed our usual residents, i. e., Magpies, Horned Larks, Meadowlarks, Red-winged Blackbirds, Flickers, etc., and only a sparse population of our Junco winter residents. Of these last the following have been seen, and all are probably still here, viz., White-winged, Grey-headed, Pink-sided, Slate-colored, and Shufeldt's. This array of Juncos would be, probably, of keen interest to a resident of the East, but, to us, these birds are familiar winter friends, and though greeted each year with pleasure, they do not excite the comment many other and more uncommon species do. The mass of Juncos seemed to reach us in a wave which spread over Denver on October 20.

There have been very few Hawks hereabouts since October 15; only the Sparrow Hawk and the Pigeon Hawk have been noted in the city lately, and of these two species, but two individuals of each have been seen, and once the Marsh Hawk was observed immediately outside of the city limits.

A visit to a 'Duck Club' late in October gave the writer a chance to see a few water-and shore-birds, and also led him to discover a single White-crowned Sparrow, which was associating with Song Sparrows in the swampy outlet of the lake. This date, October 29, is the latest record of this species in this region.

No Robins have been seen since October 15. Frequently it has been the case that there are no Robins about Denver, but many in the neighboring foothills. Friends of the writer, who also are interested in birds, report that they, too, have seen no Robins, even in the foothills, and, too, that they have seen very few other species.

Several Creepers have lingered about the writer's home neighborhood, the last one having been seen on November 13. There was a snowfall in Denver on November 8, and another on November 17, but these transitory cold spells probably had little or no effect in keeping the Creepers here. It is extraordinary to have this species here so long and at this time.

If now the Great Northern Butcherbird and the Mountain Chickadee be recorded as

visiting this region during the past two months, the writer will have pretty well exhausted the list of birds seen by him in that time.

Aside from the two light snowfalls mentioned above, and one cold spell with temperatures below 15° Fahr., the weather has been of great mildness.

Dandelions were seen in bloom in the city on November 26.—W. H. BERGTOLD, *Denver, Colo.*

LOS ANGELES REGION.—The migration of shore-birds has held the attention of our observers throughout the season. A number of trips were made to White's Point, where the Turnstones were recorded at their usual time of returning, but the Wandering Tattlers eluded us until two months after their normal date of occurrence, the first record coming from the rocky shores near Laguna Beach early in October. A few days later, October 13, four Tattlers, one Baird's Sandpiper and two Long-billed Curlews were the rarities on a long list that included Northern Phalaropes, Western, Horned, and Eared Grebes, myriads of Terns, Gulls, and Ducks, a Golden Eagle, and the first Say's Phoebe of the season. Mid-October was marked by an immense visitation of Red Phalaropes. They dotted the ocean for miles along the coast and entered the harbors in vast numbers, moving fearlessly about among the shipping. A group of five visited the small lake in Westlake Park, three of them succumbing there to death from some unknown cause, being found in a very emaciated condition. Mortality was very high among the great flocks, numbers being found dead along the shores. Similar conditions were reported from many points along the coast, throughout the length of the state. Our extreme dates for this remarkable visitation are October 15 to November 13, when about 50 birds were still in the outer harbor in a close group near the breakwater, some scattering birds were on the kelp at Point Firmin, and a few were at Long Beach.

The Egrets that winter regularly about the harbor district came in at about their usual time, a single bird being seen in the marshes in September, 2 or 3 in October, and by the

first week in November, at least 6 had returned to their winter quarters on the tide flats at San Pedro, where many waders gather. A group of 13 Avocets was observed there on October 26, and again November 8, the absence of fresh-water areas at this season apparently having driven them to accept the margins of salt water for feeding-grounds. Five Long-billed Dowitchers, 5 Willets, 3 Marbled Godwits and many Black-bellied Plover were with them. Bonaparte's, Herring, and Glaucous-winged Gulls are occasionally seen in small numbers in company with the more common Gulls. Loons and Horned Grebes have been observed upon the ocean throughout the fall, and the Surf and White-winged Scoters are very numerous.

Our list of winter visitant land-birds has been augmented by the arrival of the Varied Thrush, Lewis's Woodpeckers in unusual numbers, and a Red-naped Sapsucker, noted on December 5 and 9. First Robins were reported November 12; Mountain Bluebirds, November 21, Cedar Waxwings, November 24. The Slender-billed Nuthatch was noted in Echo Park, November 28, and, on December 5 and 9, was found in the park at Sunland. On the latter date Purple Finches were seen. Blue-fronted Jays were numerous in the Arroyo Seco near Pasadena November 29. Bell's Sparrows were found in abundance in the lower foothills near Tejuja Cañon, December 5 and 9, watch being kept for an hour at midday on a steep slope covered mainly with *Adenostoma* and *Artemisia californica*, where a slight leak in a water-pipe afforded a drinking-place. Here came Bell's Sparrows in constant succession, from one to five being present continuously. Other visitors were a Valdez Fox Sparrow, a Chipping Sparrow, many Gambel's, a Spurred Towhee, two Anthony's Towhees, a Thrasher, a Robin, a California Jay, two Wrentits, many Audubon's Warblers and Green-backed Goldfinches, a Hermit Thrush, a pair of Linnets, and a Mockingbird. A Hummingbird, a Gnatcatcher, a Savannah Sparrow, and a Flicker came near but did not visit the water, and a Sharp-shinned Hawk flew over. A Black-tailed Gnatcatcher was seen in the dry wash near by. An alfalfa field in the valley was visited by an immense flock of

Red-winged Blackbirds that rose with a roar of wings as we passed. Immense flocks of Brewer's Blackbirds in suburban localities have attracted much attention, and from the proportion of brown individuals to black it would appear that the season's hatch was a pronounced success.

As we close this report (December 12), the Myrtle Warbler is reported from Echo Park and the Black-throated Gray Warbler from Sycamore Grove.—FRANCES B. SCHNEIDER, *Los Angeles, Calif.*

SAN FRANCISCO REGION.—The migration of shore-birds on the Alameda mud flats, as reported by Mrs. Kelley, shows a decreasing number of Godwits and Dowitchers until December 10, when 2 Godwits were seen and Dowitchers were missing for the first time. The last wave of Forster's Terns occurred on November 18. The flock of Willets is now (December 12) reduced to 15 but Sandpipers (Western, Least and Red-backed) are still increasing, as are also the Black-bellied Plovers. Ring-billed and Bonaparte's Gulls are still very abundant. On the sandy beach south of the Cliff House Mr. Kibbe reported the Snowy Plovers as abundant on December 3. On the same date the toll of ocean wanderers brought in by the high wind of the preceding night included 2 Common Loons, 5 Pacific Fulmars, 2 Dark-bodied Shearwaters and 1 Murre.

The Ducks on Lake Merritt, in Oakland, are present in throngs, but have probably not yet reached the peak either as to individuals or species. On November 6, Mr. Kibbe reported Pintails, Ruddies, and Lesser Scaup as being far in excess of other species, but by December 12 the Baldpates and Shovellers were as numerous as Ruddy Ducks, and Scaup were hard to find. Only one Canvasback was seen. The birds are noticeably more tame than in other seasons. The Pintails in particular settle down like domestic fowls in the enclosure recently wired in to afford them better protection. About 15 pairs of Mallards are also very much at home. Mr. Dixon reports 8 male Buffleheads on the lake earlier in the month, and a few are present on the lakes in Golden Gate Park. One White-winged Scoter was seen on

Spreckles' lake on the 11th, and a second Scoter was in such nondescript plumage that I could not be sure of its identity. Grebes are not yet abundant on lakes I have visited.

Among the unusual land-birds are the Black-and-White Warbler and White-throated Sparrow, both reported from the campus of the University of California. Blue Jays are somewhat less abundant than in October, but Sharp-shinned Hawks are many and very bold.

The only signs of mating noticed so far are the decided pendulum antics of the Anna Hummingbirds. On November 1 and again on December 11 the male, in excellent

plumage, was found performing, and the explosive whistle produced at the conclusion of the 'nose dive' was heard from six to nine times in close succession.

In spite of the remarkable abundance of Toyon berries in the park at Lake Merritt, no Thrushes, Robins or Waxwings could be found on December 12. There was a dearth of Robins in Golden Gate Park on the 11th, only two being seen in a walk extending from First to Forty-third Avenue. Perhaps, however, this was due simply to bad luck, for they have been quite conspicuous in Berkeley throughout the period.—AMELIA SANBORN ALLEN, *Berkeley, Calif.*

SEASONAL NOTES

The Department of Notes from Field and Study has been omitted from this number to make room for the Christmas Census, but in view of the reports in 'The Season' of an exceptional eastward movement of Magpies, it is desirable to publish the following records of the occurrence of that bird in this issue.

Magpie at Fargo, N. D.

On October 23, 1921, when Arthur Brenckle and the writer were in the woods along the river near Fargo, we heard in the distance a bird which both of us suggested sounded like a Magpie. Later, hearing it again, we were almost sure of it and walked that way. We did not succeed in approaching very closely but saw the bird move in the trees and then fly away showing the characteristic flight, long tail, and white wing-patches. They are common in the western part of the state, especially along the Missouri River, but rarely seen east of it. Two or three years ago reports of them came in the winter from several places in the southeastern part of the state.—O. A. STEVENS, *Fargo, N. D.*

Magpies in Iowa

In early October, 1921, flocks of American Magpies suddenly appeared in northwest Iowa, as many as fifty often being seen at a time.

Their voices are loud and harsh and they are very noisy, always keeping up a chattering among themselves. They are capable

of imitating well the calls of other birds.

They have never been in this locality before and I have never heard of their being seen any further east than the vicinity of the Black Hills of South Dakota.

They seem to prefer animal food, as they have been observed making a meal from dead animals. Some claim that their migrating here is due to so many cattle dying on the western ranges, in the recent severe winters. Others claim it is a sign of the approach of an uncommonly severe winter.

They act very much at home here and seem to intend to stay. Just now (early November) they are still here in large numbers. Everyone is discussing their presence as the occurrence is so unusual. They do not get along well with the Crows.—LENA BRADY, *Sutherland, Iowa.*

The Magpie in Wisconsin

I have been requested by numerous other bird-lovers to write you concerning a Magpie which I saw five miles north of this city on November 25, 1921. It was apparently quite at home among a small group of Crows. I recognized it from its resemblance to the European Magpie, not having seen the western Magpie of America. However, its large size and prominent markings would serve to identify it, even if one had only a picture to compare it with. River Falls is in latitude 44° 50' north and longitude 92° 40' west.—C. G. STRATTON, *River Falls, Wis.*

Book News and Reviews

THE BOOK OF BIRDS FOR YOUNG PEOPLE. By F. SCHUYLER MATHEWS. With 6 illustrations in color and 28 in black and white, by the author. G. P. Putnam's Sons, New York, 1921. 12mo, xviii + 323 pages.

Mr. Mathews tells us that by 'Young People' he means anyone from "five to fifty years of age," and his method of presentation seems to be as well designed to hold the attention of an audience of children and grown-ups as any we recall having seen employed. His actual audience, however, appears to be a grandson whom he takes afield with him for a series of walks and talks which carry them through the year.

His style is far from being prosy or unnecessarily didactic; at times, indeed, is so sprightly as to verge on flippancy, but the interest is sustained and actors and incidents follow each other rapidly across the page.

The author has won deserved success in transcribing bird songs to the musical staff, and he here offers bits of rhyme designed to express the rhythm and to a lesser extent, sentiments of bird songs, some of which deserve to live.

The ornithological accuracy of the book does not, unfortunately, measure up to its literary quality. There is, for example, no excuse for saying that the small Flicker is "without" red on the nape, that the Mockingbird is "always" an imitator, that his call-note is "fo-ree" or that he sings throughout the year. That "fearlessness" is a characteristic of Warblers which are the only "species," known to the author, in which a cautious student may stroke the brooding female, will also be news to experienced field men. Many of the illustrations are attractive but art rather than accuracy has supplied a standard for others, and even the widest artistic license cannot sanction drawings of birds with wings of from eight to ten feathers.—F. M. C.

ANNUAL REPORT OF THE BIOLOGICAL SURVEY. By E. W. NELSON, Chief of the Bureau. 8vo, 34 pages. U. S. Department of Agriculture, Washington, D. C.

This document, covering the work of the Biological Survey for the year ending June

30, 1921, gives one in comparatively few words, some conception of the scope and importance of the work of this invaluable Bureau of our Government. In reading it one is impressed, not only by what the widely varied activities of the Bureau saves the nation, but also by the absolutely incalculable losses we should have sustained without the services of the experts that form the Bureau's staff.

Nor should we reckon the value of their work on the basis of their yearly achievements, but take also in account the vast and ever-growing store of information in regard to the inter-relations of bird and man which has made the science of economic ornithology what it is today.—F. M. C.

COMMUNITY BIRD REFUGES. By W. L. McATEE, Farmers' Bulletin No. 1239, U. S. Department of Agriculture, Washington, D. C. December, 1921. 14 pages.

This admirable leaflet cannot have too wide a circulation. It may be obtained without charge by applying to the Department of Agriculture, and we hope that every reader of BIRD-LORE will secure a copy for himself and having read it will give it to his neighbor. 'Bird Refuges on Farms,' 'Roadsides,' 'Right-of-Ways,' 'Community Parkings,' 'Municipal Parks,' 'School and College Grounds,' are some of the headings under which practical suggestions are given in regard to the creation of conditions which will increase the bird population.—F. M. C.

The Ornithological Magazines

THE AUK.—'In Memoriam: William Dutcher,' by T. S. Palmer, illustrated with a full-page portrait, opens the October number of *The Auk*. It is a tribute to this eminent ornithologist, who was identified with the early activities of the American Ornithologists' Union, and was the power behind the Audubon Society movement, from its inception until ill health forced his retirement from active affairs several years before his death. "To know William Dutcher was a privilege; to work with him was an inspiration."

There are several faunal papers. T. Gilbert Pearson in 'Notes on the Bird-Life of Southeastern Texas,' presents personal observations on the numbers and habits of the more interesting species of this region, made on a field-trip the last of May and beginning of June. Among the birds recorded are the White Pelican nesting in Laguna de la Madre, the Roseate Spoonbill, Reddish Egret, Chachalaca, White-winged Dove and Great-tailed Grackle. Two plates are from photographs of the nesting of the Brown and White Pelicans, Reddish Egret, Cabot's and Caspian Terns.

'Breeding Birds of Warland, Lincoln Co., Montana,' by Thomas D. Burleigh, comprises notes made in the summer of 1920, and lists 79 species. Warland is a remote lumber town, where Ruffed Grouse and Pileated Woodpecker, unused to man, are remarkably tame. To quote from 'Some Southern Michigan Bird Records' by Norman A. Wood, "The records in the Museum of Zoölogy, University of Michigan, apparently indicate that several species of birds are in Michigan extending their ranges to the northward, or are becoming more common." Barn Owl, Grasshopper, Henslow's and Lark Sparrows, Prothonotary and Connecticut Warblers, Short-billed Marsh Wren, and Tufted Titmouse are mentioned, and the available data given. Unpublished records of other rare birds are included in this paper. 'Notes from Connecticut,' by Louis B. Bishop, M. D., contains critical migration and other data on some 66 species and subspecies supplementary to 'The Birds of Connecticut,' published in 1913.

'The Later Flights of the Passenger Pigeon' by Frank Bond, is a short paper of much interest, a memory sketch from eastern Iowa of the vanishing hordes of this species (half-tone plate). They flew in long lines or bands, extending laterally to their line of flight. Leverett M. Loomis records the belief that Albatrosses and Petrels find their way on their extensive wanderings by following shore-lines, ocean currents, and winds, not by special sense of direction. He has made several observations on the behavior of such birds off the California coast which would lead to this conclusion. It is also

borne out by facts in the distribution of birds of this group. 'The Abbreviated Inner Primaries of Nestling Woodpeckers,' by James P. Chapin, illustrated with a half-tone plate and several text figures, is a primarily anatomical discussion from a philosophic viewpoint. 'The Feeding Habits of the Black Skimmer,' by Stanley Clisby Arthur, is illustrated with two plates, from four photographs. The author has "*never seen a Skimmer secure its fish food while skimming the waters with its under mandible immersed.*" He has, on the other hand, seen them pick up small fish, evidently chased into a shallow flat by larger ones. The Skimmers meanwhile were standing in the shallow water, and so photographed. He concludes that the Black Skimmer does not secure its food in the way generally set forth, and that the function of the peculiar bill is unknown. This is an interesting paper but it is hard to prove a negative in the face of rather convincing affirmative evidence. It also does not seem likely that a bird could gain a living by simply picking up such active fishes as silversides, for instance (here mentioned). A taxonomic paper by Nagamichi Kuroda describes several new races of Japanese and Korean Woodpeckers.

'General Notes' contain a variety of items, mostly of faunal interest. Aaron C. Bagg speaks of 'An Oil-soaked Loon at Watch Hill, R. I.' and suggests "a rigid federal law relative to the disposal of waste oil at sea." Witmer Stone supplements Arthur's article on the Skimmer with an observation of its capturing a fish while flying low over the water. "It was not 'ploughing the main' at the time, and it would seem as if the peculiar bill must have been a hindrance to its success rather than an aid." Ralph Hoffman describes 'A Mating Performance of the Least Tern' in California. It is to be wished that more details had been supplied by Charles A. Urner with the statement that "At least two Greater Yellow-legs remained here [Elizabeth, N. J.] throughout the breeding season [1921]." The Greater Yellow-legs is almost regularly present in this latitude in summer as a coastwise transient, except the last week in June, a short but definite hiatus, invariable, or nearly so.—J. T. N.

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Bird-Lore's Motto:

A Bird in the Bush Is Worth Two in the Hand

BIRD-LORE extends its cordial thanks to the hundreds of observers who have contributed to its twenty-second Christmas Census. This annual event has now become an institution. Doubtless a fair proportion of the bird students who took part in it this year were not born when it was inaugurated and we hope that their children and children's children will keep this tryst with the birds at Christmas time.

The scientific value of these thousands of definite records from throughout our country has become increasingly obvious. While it is not to be expected that the bird-life of the winter can be shown in a day, or even that the bird-life of a day can be recorded in any part of it, it is nevertheless clear that the lists of birds sent us give, on the whole, an accurate conception of the numbers and kinds of birds present during mid-winter. One ornithologist, known for the thoroughness and accuracy of this field work, tells us that his census this year contains one less species but exactly the same number of individuals which he found in the same region three years ago. A coincidence no doubt, in part, but significant nevertheless.

It would be most instructive to put a stranger in the territory of the local ornithologist and compare the results of their day's observations. Assuming that in ornithological knowledge, keenness, and powers of observation, both were equal, the visiting man would, of course, be at a great disadvantage. And this gives point to the fact that most of BIRD-LORE'S censuses are made by

observers thoroughly familiar with their ground. Their route is planned with a full knowledge of local conditions governing the distribution of bird-life in winter, and the real census enthusiast prepares for the grand 'round-up' by preliminary surveys which make him familiar with affairs in his part of the bird world up to the very day on which he takes his final count. These factors all combine to make the censuses truly representative of our winter avifauna.

Wholly aside from their present and future reference value, these lists of names and figures, which look hopelessly uninteresting to the uninitiated, perform, we believe, a number of important functions. Their making stimulates wholesome competition and accuracy in observation, and their reading gives one mental pictures of the numbers and species of birds to be found in other parts of the country during the winter which are not elsewhere available. Furthermore, these pages of names include not only a census of birds, but, in a measure, a census of bird students. We know of many regular contributors to the census who have never met but have become correspondents, to their mutual pleasure and advantage through the medium of the Christmas Census.

BIRD-LORE has already expressed its opinion of the farmer whose ill-advised energy prompts him periodically to 'clear-up' his boundary lines and field borders by ruthlessly cutting off the vegetation which had sprung up along them.

With much satisfaction, therefore, we read in 'Community Bird Refuges' (noticed on page 52) Mr. McAttee's arraignment of this custom and the reasons why it is not only needless but defeats the very end the farmer is supposed to have in view.

MR. MCATEE writes: "There can be no doubt that suppression of roadside vegetation is a potent factor in restricting the numbers of birds, and the ever-increasing tendency to allow fence rows the minimum of space has the same effect. Farmers may gain a planting row about every field by the destruction of vegetation along fences, but they lose the services of the birds, their best allies in fighting insects."

The Audubon Societies

SCHOOL DEPARTMENT

Edited by A. A. ALLEN, Ph.D.

Address all communications relative to the work of this department to the Editor, Cornell University, Ithaca, N. Y.

THE NEW YEAR WITH THE BIRDS

This is the time of good resolutions. The year is still so young that we have not yet forgotten the ones we made on New Year's Day and there is plenty of time to make others. Let us, therefore, in making our plans for the school year, lay out a definite work that we will do in bird-study and then let us stick to it. It is not well to try to do everything in one year and the past volumes of BIRD-LORE are so replete with suggestions that it is well to decide at the beginning of the year just what plan is to be followed, lest one get lost in his own enthusiasm, and arrive at the end of the year with no piece of work well done. Decide on one line of work to follow and then center all efforts about it. Let the composition, the drawing, the manual training, and the geography, as well as the nature-study, center about it, so that the children will actually live in the experience and make it part of their lives. Suppose, for example, one decides to study the migration of birds. Do not wait until the birds begin to come back in the spring, begin now. Start the bird calendar with the winter birds. Many of them are migratory and are merely spending the winter with us. It is a good lesson to find out which they are. The bird calendar will make more than one good drawing lesson. Refer to the March-April BIRD-LORE of 1920 for ideas as to the making of the calendar and information about the migration of birds. Get out your bird books and look up the nesting range of the Snow Bunting, the Tree Sparrow, the Northern Shrike, or any other bird that you see on one of your winter walks or that is reported by some child and let it make a lesson in geography.

Plan at least one walk for birds with the class during the winter and then have the children write it up as one of their English lessons. If it does not seem feasible to get out together, encourage or require them to take individual



NORTHERN SHRIKES ARE COMMON THIS WINTER. CAN YOU SUGGEST A GEOGRAPHY LESSON ON THIS BIRD?

walks by themselves in search of winter birds and write letters or compositions about what they see. Send the best one to BIRD-LORE and we will publish it in this department. When the birds begin to come back in the spring, the calendar should already contain the names of all the winter birds that have been seen and the others should be added as soon as they are reported. Let it not be sufficient, however, merely to add the bird's name to the chart. There is material for a drawing lesson, a geography lesson, or a composition

on any bird that is reported. Where has it been; what has it seen; what has it been doing since it left us last fall? Read 'The Yellow Warbler's Tale' from the July-August, 1921, BIRD-LORE, to the class and then let each child write a similar story for any other bird that has just come back from the South.

When the spring migration is over, do not put the bird chart away but add the nesting records to it, and when the birds come back in the fall keep a record of their arrival and try to get the latest date of departure. In other words, let the bird calendar be a real calendar and extend throughout the year.

The subject of bird migration, or the arrival of the birds in the spring, would make a good subject for a school pageant or a little play. Perhaps we will devote a near number of this Department to school pageants, and, in preparation for it, we would be glad to hear of your experiences in composing or directing such a school activity.

Perhaps you will prefer to make a study of birds' nests this year. Now is the time to begin making a collection of last years' nests while they are



OLD NEST OF BALTIMORE ORIOLE
Now is the time to start a collection of birds' nests

conspicuous among the leafless branches. Refer to the November-December BIRD-LORE of 1920 for suggestions as to how to preserve the nests and for a key with which to identify them. Perhaps some boy will bring in a stub in which a Woodpecker has drilled its nesting cavity. This will be a good starting-point for a discussion of nesting-boxes and for starting a bird-house competition. Refer to the January-February BIRD-LORE of 1920 for suggestions as to how to build bird-houses and where to place them. Do not let the com-

petition end this year until all of the bird-houses have been properly placed, as well as properly constructed. The bird-house that is never occupied may discourage the budding germ of nature interest in the youthful mind, and ordinarily the lack of an occupant is due as much to poor placing as to improper construction. The study of bird-homes should not cease with the study of winter nests and the building of bird-houses. This work should be finished and the bird-houses in place by the middle of March, in time to turn the attention to the home-building of the early Robins and Bluebirds and Song Sparrows.

Put out nesting material for the birds—cotton for the Yellow War-



HAVE YOUR BIRD HOUSES IN PLACE EARLY



HAVE YOU EVER PUT OUT NESTING MATERIAL FOR THE BIRDS? HERE IS A FEMALE BALTIMORE ORIOLE TAKING STRINGS FOR HER NEST

blers and Redstarts, short pieces of string or yarn for the Orioles and Robins, horse-hair for the Song and Chipping Sparrows, and watch them carry it to their nests. This is sometimes the easiest way to find nests when they are just being built. Encourage the children to watch the building of the nest carefully and to record what they see. Which bird does the building? When is most of the work done? How far do the birds go for materials, and what is used? How long does it take to build the outside and how long for the lining? How long before the first egg is laid, etc.? More can be learned from watching one pair of birds carefully than by trying to record the nests of all the different birds of the locality, although the latter effort often stimulates competition and makes valuable additions to the bird calendar. Em-

phasis should always be given to the value and interest of watching a nest through all the activities until the young take wing. This will help to curb the impulse which some boys have for making a collection of birds' eggs, for they will soon learn how much more interesting is the life about the nest than the fragile egg-shell in the collection, no matter how beautiful it may be. If the children become interested in the birds' eggs, refer to the July-August 1920, BIRD-LORE for suggestions.

Whatever else you do, be sure to maintain a feeding-station for birds on the school-grounds and encourage the children to feed the birds at their homes. This will not interfere with anything else you may wish to do and it will bring



A BALTIMORE ORIOLE BUILDING ITS NEST (Upper, right-hand).
The old nest can be seen in the lower, left-hand corner

the birds to the windows for close observation. Some of the boys will be interested in building a feeding-shelter somewhere along the edge of the woods and when the birds are coming in numbers to this feeding-place, take the whole class for a field-trip to study winter birds and visit this feeding-station during the walk. The winter birds are always concentrated about good feeding-spots, and, unless one knows where these are, he may walk long distances without seeing a bird. The winter is a good time to begin bird-study, however, because the birds are relatively so few in number that they are not confusing. Furthermore, the majority are quite tame and will allow a close approach,

even with a large class. At feeding-stations, Chickadees and Nuthatches often learn to eat from one's hand.

In this number of BIRD-LORE you will find the result of the Christmas 'bird census.' Perhaps you will find a record from your own town or at least from one not far distant. If you will read these records you will learn which birds you can expect to see on your rambles this winter. In many places there seems to be an unusual number of the more uncommon winter visitors this winter, especially the Northern Shrikes. Tell the children to be on the lookout for them.

A number of requests have come to the Editor of this Department for suggestions as to a graded course of bird-study for the schools. In New York



A BIRD CLASS AT A FEEDING STATION. THE CHICKADEE SOON
MAKES FRIENDS

State and in cities where a nature study supervisor is employed, a syllabus for the guidance of teachers is ordinarily supplied. Some teachers like to have their work outlined for them; others do not like to be thus hampered. The chief difficulty with the ordinary graded course of bird-study lies in the lack of flexibility of the syllabus. The conditions under which bird-study must be given are not alike in any two localities nor the same two years in succession. The best teachers take advantage of each opportunity as it arises and teach from it according to the development of their pupils and without regard to any fixed syllabus. It is for this reason that thus far, in this Department of BIRD-LORE, we have discussed general principles that might be applicable to any birds or any circumstances. We would be glad, however, to publish your experiences with graded courses of bird-study for the benefit of those who like to have their work outlined for them. If you have tried

some form of a graded course, briefly outline it for us and tell us what your experience with it has been. We would like to open this Department to a free discussion of the problem.—A. A. A.

FROM YOUNG OBSERVERS ON THE MARSH AT PAPASQUASH

My friend and I started early on August 2, 1919, with our lunch and began to explore a salt marsh on Papasquash Point, in Narragansett Bay. Herons' heads stuck up from the grass at every turn. Many Great Blue and Little Green Herons were flushed.

Walking over the treacherous ground we were able to observe flocks of Least and Semipalmated Sandpipers at a few yards distance. They went calmly about their business, very different from the much more wary Spotted Sandpipers and Killdeers which were in small numbers and did not allow approach.

Leaving this marsh we went to the next, flushing several Grasshopper Sparrows at our feet. Arriving at the marsh, a Bittern flew up and away and a clap of our hands brought eighteen squawking Night Herons over our heads.

On our way back to the first marsh we saw many Bobolinks, Goldfinches and Vesper Sparrows. Fish Hawks, American and Fish Crows, Herring and Laughing Gulls, and Roseate, Common and Arctic Terns flew over the marsh, and we were soon alarmed by a flock of Yellow-legs whistling above us. They lit and allowed very close observation. The Lesser Yellow-legs were more shy and had broader bands on the tail than the Greater. Both species waded up to their abdomens and often immersed their heads. There were probably 100 of these birds. Long-billed Marsh Wrens abounded and many Black Ducks lit in the marshes.

I shall never forget that day with the Yellow-legs whistling plaintively overhead and the sun shining through their white tails.—TOBIAS WAGNER, *Chestnut Hill, Pa.*

[Many of our most interesting birds dwell in the marshes. Anyone who avoids these areas misses the richest and most enchanting places for bird-study. Bird-life is at its best in these so-called waste lands; may they be long preserved.—A. A. A.]

AN ARKANSAS KINGBIRD'S NEST IN A MAIL-BOX

In May, a pair of Arkansas Kingbirds made their nest in our rural mail-box, and hatched three young birds from four eggs. The mail-box was in daily use, the nest being in one corner. The old birds fed them in the mail-box until ready to fly.—LEONARD DOUGHERTY (age 12 years), *Tioga, Tex.*

BEFRIENDING A CRIPPLED BIRD

Two years ago, when my mother and I were in the mountains, we were camping by a little grove of trees. One day we heard a loud chirping. We

got up and went toward the firs from which the bird's cries came. We made our way through the trees and came to a nest, and when I picked it up I found four little eggs in it.

I looked for the mother bird and found her lying under a tree—something had broken her leg and one wing. We took her to camp and put splints on her wing and leg and wrapped her up in a blanket to keep warm. We fed her some crumbs and she ate with much appetite and drank as if she had had no water for weeks. She didn't seem to be a bit afraid or even try to get away. Within two weeks she could walk around, so we took the splints off. Soon we took off the splint that was on her wing. That night, as usual, we left her in her box. The next morning she was gone but the next evening, about 5 o'clock, she came back. We gave her some more crumbs and she cuddled in her box. The next morning she was gone again. She did this as long as we were there and when we left we put her box under a fallen tree near the camp.—MERCEDES PAYNE (age 12 years), *Orosi, Calif.* Member Orosi Junior Audubon Society.

[We are all glad that Mercedes' efforts at helping the wounded bird were so successful, and that she was rewarded by its trust and friendship. All efforts to help some kinds of crippled birds are unavailing, so we wish Mercedes had told us what kind of a bird it was that she so successfully aided to get well.—A. A. A.]

JIM, THE SEAGULL

One afternoon last summer a Seagull landed on our beach. He was pecking at a dead fish that had drifted in. We noticed that he was very young and also tame. I was out rowing at the time, and I rowed in as near as I thought safe and looked the bird over. I noticed that he was hungry for he kept pecking at the fish. We went in so near to him that we could almost touch him.

When he saw us so near, he took flight. We watched him go until he lit on the marsh. We went over to the marsh and found him in a small pool of water. We had noticed that he was lame and when we went up to him, he just let out little squawks. We then saw that he had a broken leg.

Then Billy Burnham, a boy that was with us, picked him up and he offered little resistance. We took him home and made a pen for him. He was frightened at first but he soon grew contented when we gave him a piece of fish. We then took him to a man who fixed his leg in splints. After a few weeks he got better and then we let him go. When he got free he circled around a few times and flew away.

Often he came back and lit in the water in front of our house, but he soon grew wild again and went away forever. We were sorry to lose our friend Jim, but we had to let him go back to his old life.—WARREN W. MARTON, *Everett, Mass.*

[Warren showed the proper spirit when he gave the Gull its liberty as soon as it was able to care for itself. Better by far to have a happy wild, free bird than a discontented caged one.—A. A. A.]

MARYLAND YELLOW-THROAT

By T. GILBERT PEARSON

The National Association of Audubon Societies

EDUCATIONAL LEAFLET NO. 107

The Maryland Yellow-throat is a lover of thickets and rarely is seen far from the shelter of low, tangled growth. In the bushes and weeds skirting a ditch-bank or tiny brook winding its way across a field or meadow; in the covering briars of old fence-rows; or in the growth-bordered swamp you may look for this little haunter of the shadows. It cares not at all for tall trees, and the open places so beloved by Meadowlarks and Vesper Sparrows do not attract it. Like all of the Warbler family, to which it belongs, this bird feeds mostly upon insects. It is known to consume many leaf-hoppers, an insect which in some places is very numerous and feeds on grass that the farmer would like to have left for his cow. In fruit orchards, to which the Yellow-throat sometimes wanders, it has been found by Forbush to be very fond of canker-worms, and in the nesting season will travel long distances to get these dainty morsels for its young. Mr. Forbush says also:

"Since one of these birds was seen to eat fifty-two caterpillars of the gipsy moth in a few minutes, it seems probable it may well be ranked among the official enemies of this pest. Case-bearers, leaf-rollers, and many other destructive caterpillars are greedily devoured, and it also catches and eats both butterflies and moths in considerable numbers."

It is known to eat plant-lice that take the nourishment from the leaves. It likes flies and beetles. When grain in the field has grown high enough to offer shelter, the Yellow-throat will appear and hunt the live-long day for insects that infest the crop.

When cold weather approaches, this insect-loving Warbler flies away to regions where the frost has not played such sad havoc with its food. Down in the southern states you may find it in winter. In the coast region of North Carolina, southward to Florida and Louisiana, is where it then spends many months. Some individuals, also, may be found at this season in the Bahama Islands, Cuba, Jamaica, and Central America.

Mr. W. W. Cooke, a great authority on bird migration, some years ago prepared a table from the records he had received showing the average date when the bird arrives at different points on its northern journey in spring. Some of these are as follows: Raleigh, N. C., March 30; Washington, D. C., April 21; Beaver, Pa., May 4; Germantown, Pa., April 29; Englewood, N. J., May 4; Boston, Mass., May 7; Southern Maine, May 14; and St. John, N. B., May 18.

Immediately upon its arrival at its summer home the Maryland Yellow-throat announces its presence with a series of chirps and calls highly characteristic of the bird. It soon bursts into song and its loud and pleasing notes may be heard issuing from its thicket home at various times during the day. Some males, however, seem to be more vocal late in the evening. It does not leave off singing after the end of the nesting period, but, like the Red-eyed Vireo, may be heard at various times during the warm summer days.

Mr. F. Schuyler Mathews, a well-known bird student and writer regarding the songs of wild birds, has this to say of the song of the one under discussion:

"The familiar song of the Maryland Yellow-throat scarcely needs description. It is commonly composed of three syllables, rendered in a variety of ways. To wit: *Witchery, witchery, witchery*, or *Which-way-sir? which-way-sir? which-way-sir?* or *Wichily, wichity*, etc., or *Rapily, rapily*, etc., or *Which-is-it? which-is-it?* etc., or *What-a-pity, what-a-pity*, etc., or *I-beseech-you, I-beseech-you*, etc., etc. One is at liberty therefore to take his pick of the various sentiments. In any case the rhythm of the bird is remarkably exact and there is no missing the song. After hearing all the Maryland Yellow-throats about Boston and also the White Mountain region sing a trisyllabic song, I was delighted to find, one early morning in the Arnold Arboretum, one of Mr. Chapman's New York birds singing the four-syllabled *I-beseech-you* version. But the bird sang the song his own way, and did not conform strictly to Mr. Chapman's rendering.

"There is no more tone to this bird's voice than there is to that of the Ovenbird; consequently I cannot say that the intervals represent true pitch."

Many observers unite in the statement that usually two broods are reared in a year. The nest is made on the ground, and, in fact, one might almost say in the ground, for a portion of the lined cup in which the eggs are laid is sometimes below the actual level of the soil.

As is known to all bird students, a great amount of pleasure may be derived from watching closely the habits of a bird when about its nest. Spying on the home-life of a pair of feathered inhabitants of the forest very often reveals many interesting traits and habits not otherwise suspected. A man who has been fond of thus employing his time is Alfred C. Redfield, of Wayne, Pa. Writing in the July-August issue of *BIRD-LORE* for 1911, he had this to say of his experience with a family of Maryland Yellow-throats.

"On the following day, May 27 it was, I returned and approached more cautiously. There, on the nest, was a little olive-backed bird, a female Maryland Yellow-throat, looking up at me with fearless shining black eyes. I leaned over, and when my hand was almost touching her, she slipped from the nest and crept silently through the grass to the shelter of the briars, from whence I saw her watching me with anxious eyes.

"The nest was lodged in a thick bunch of grass. The outer part was a

collection of weed-stems, coarse grasses, dead leaves, and strips of grape-bark rather loosely put together. The lining was of very fine strips of grass and horse-hairs compactly woven into a deep bowl. On the side away from the briars, the thick grass rose, completely screening it from view. Indeed, it was a most proper setting for the beautiful little eggs.

"On every visit the mother bird had shown the same fearlessness. On June 1, when I tried to photograph her on the eggs, I had little trouble in setting up my camera and making some pictures from within 2 feet of the nest. Even when, in removing some obstructing grasses, I frightened her off, I had only to wait half an hour for her return. Nothing can give the bird photographer so much satisfaction as such a demonstration of confidence on the part of his subjects.

"On June 6, three of the eggs hatched. The fourth was addled and remained in the nest until after the young had left. The nestlings were typical young Warblers, blind and naked, their pink skin covered only by the finest gray down. No wonder the brooding mother was reluctant to leave them unprotected at my approach.

"Almost immediately the pin-feathers began to appear on all the feather tracts, even protruding a little from the extremities of the wings. Four days later their eyes opened, and the following day the feathers commenced to burst from the ends of their sheaths. Now, for the first time, the male put in an appearance. Incubation had been carried on altogether by the female. The male, however, was no shirker, and soon showed that he could do his share in caring for the young.

"At 9.30 A.M., on June 12, I set up my green umbrella tent within 3 to 4 feet of the nest, no attempt being made to conceal it. At half-past ten, I entered the tent with my camera. Both birds appeared at once; the male with a moth, the female carrying a spider. After ten minutes of excited hopping about, the female summoned up courage and fed one of the young ones. The male was still shy. At 11 o' clock I left the tent but returned fifteen minutes later. Both birds were scolding anxiously when I entered again. I did not see them go to the nest up to noon when I left for lunch. When I again returned to the tent, I found the male carrying a small insect. Ten minutes later both birds went to the nest at once. The female remained to clean the nest. Soon the male was back again with more food. Now for three hours the birds came regularly and apparently without fear. As I look over my notes it all comes back to me: the hot sun filtering through the tent, the stifling air, my cramped legs, the rickety soap-box on which I sat, the busy trips of the birds, and the constantly decreasing pile of unexposed plate-holders.

"In three hours the male made fifteen visits and the female six; an average of one visit every eight and a half minutes. The food consisted of small moths, spiders, grasshoppers, soft brown grubs, green worms, and some insects too small to be identified. The nest was cleaned on the average of once every

half hour. This operation occurred more frequently as the parents became accustomed to the presence of the tent. Both birds shared equally in this task. Often the female would stand on inspection for fully five minutes, if unrewarded, leaving only when her mate made his next visit. Several times I saw her pick at the plumage of the young as though trying to remove lice. In going to and from the nest the birds communicated with one another by low twitters. Occasionally the male paused in his work to give a faint song.

"On one occasion the male fed two of the young. Before he had left, the female arrived with an insect. He held his bill toward her as though wishing to take the food from her. Not heeding him she proceeded to feed the young one last favored by the male. Quickly her mate removed the food from the young one's mouth and thrust it into the bill of the third young one, which had received nothing. This would make it appear that the parent birds do actually keep some account of which young they have last fed. In the case of another species, however, I have known one young to be fed six times to his brother's once.

"The next day I found the feathers of the young ones had developed greatly. The sheaths were almost all gone and the little birds were covered with a coat of soft feathers; greenish brown above, buffy beneath. They were now eight days old. I photographed them without taking them from the nest. Two days later they were gone, but the anxious calls of the parents told me that they were safely hidden away somewhere in the shadow of the old fence-row."

The Yellow-throat is found in suitable localities throughout the United States, also in southern Canada, and, as we have seen above, in winter as far south as Central America. In the various sections of its range the bird assumes a slightly different appearance in its coloration and for this reason it has been divided by ornithologists into six distinct races, the names and distribution of which, in addition to the eastern form already described, are as follows:

Western Yellow-throat, found in western North America from central Alberta and South Dakota to northeastern Lower California and western Texas.

Florida Yellow-throat, breeds in the south Atlantic coastal country from southern Virginia to south Florida and along the Gulf Coast to Louisiana.

Pacific Yellow-throat, found in the Pacific Coast region from southern British Columbia to southern California. Winters south to Cape San Lucas the southern end of Lower California.

The Salt Marsh Yellow-throat has been described from the salt marshes about San Francisco Bay.

Belding's Yellow-throat is another western form found in the cape region of Lower California.

The Audubon Societies

EXECUTIVE DEPARTMENT

Edited by T. GILBERT PEARSON, President

Address all correspondence, and send all remittances, for dues and contributions, to the National Association of Audubon Societies, 1974 Broadway, New York City. Telephone, Columbus 7327

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FORM OF BEQUEST:—I do hereby give and bequeath to the National Association of Audubon Societies for the Protection of Wild Birds and Animals (Incorporated), of the City of New York.

ARE YOUR BIRD NEIGHBORS HUNGRY?

No method has yet been devised for determining the extent of the loss of bird-life during extreme cold weather. That many birds are winter-killed is very well known. Most students of bird-life in the northern states and Canada have had the experience of finding dead birds under evergreens, in thickets, by the roadside, and under the edges of out-houses, that have fallen from their perches in bitter winter nights.

Undoubtedly, it is not so much the cold itself that is responsible for their death as it is the lack of food. When snow covers the earth for many miles in every direction, and especially when sleet cements hard and fast on the trunk and limbs of trees, every possible source of natural food is denied the small wild birds. The temperature of a bird's blood is very high. Its heart beats twice as fast as the human heart, and it must have food frequently and in considerable quantities in order to keep burning the fires of life. Therefore, when the food-supply fails, the bird weakens and its constitutional strength quickly deteriorates, with the result that a low temperature soon ends for it the battle of life.

Millions of birds are annually saved from an untimely end by winter feeding, and this

is the season of the year when bird-lovers should be alert. It is but little trouble, and but small expense, for a household to be supplied with cracked grain and small seeds with which the birds can be fed. Such material can usually be bought at feed-stores where it is sold as 'chick-feed.' A few boards erected 3 to 4 feet from the ground, in such a way as to keep the earth beneath free from snow, affords an excellent place for distributing food for grain-loving birds. Of course, many food-shelters erected on posts are in use throughout the country, and the expense of constructing or purchasing these is not great. At the butcher-shop, for a few cents, a piece of beef-fat called 'suet' can be obtained, and this, when wired to a limb, supplies heat-producing food for such birds as Woodpeckers, Nuthatches, Chickadees, and others whose diet ordinarily consists so largely of insects.

Teachers of Junior Audubon Clubs, especially in small towns in rural communities where the school-houses are surrounded by trees and bushes, can do much by directing the efforts of their children in distributing bird-food in winter. If it is not snowing, an old table can be put out in the back yard and food placed on this. From the windows the

children can readily see the birds partaking of the bounty which they have supplied for them. Few acts of kindness in dealing with

our wild feathered life yield more dividends in the way of pleasure than the feeding of our hungry bird population.

A NEW AUDUBON SOCIETY BIRD SANCTUARY

Miss Magnolia Woodward, active in the work of the Audubon Society since its first development in East Tennessee, reports that a bird-reserve, covering 1,000 acres, on which a club-house, with assembly-room, dressing-room and kitchenette, will be erected, is to be established in and around Island Home Park, Knoxville, by the East Tennessee Audubon Society. This acreage takes in all of Island Home Park, and the land in that vicinity, including the island, will be 2 miles long and 1 mile wide. The club-house will be erected within three-quarters of a mile of the car-line on a lot which has been given for

this purpose by Mr. Harry Ijams, a member of the Audubon Society. Members of the Society have been at work on this plan for some time and are very enthusiastic over the results. There is only one large bird-reserve in the state at this time, this being near Nashville, owned by the state. The one here will be the largest established and fostered by an Audubon Society.

Permits have been obtained from residents within this 1,000-acre radius to post their grounds and use them for the protection of birds and nature. School-classes will be invited to visit the reserve to study.

WILLIAM WATSON WOOLLEN

Mr. Samuel E. Perkins, III, sends the following notice regarding the passing of William Watson Woollen, for so many years prominently identified with nature-study in and about Indianapolis:

"Some years ago, at a ripe old age, William Watson Woollen, President Emeritus of the Nature Study Club of Indiana, gave his early home 'Buzzard's Roost,' to the city of Indianapolis for a park. The city, on acceptance of the gift, pledged itself to see that the trees, flowers, and birds therein should not be molested. It is a sanctuary. This place is the *situs* of Woollen's 'Birds of Buzzard's Roost.'

"He died on March 26, 1921. On May 28 last, his birthday, the Nature Study Club of

Indiana placed on an immense boulder in the deep woods near the cabin, a bronze tablet to his memory. The inscription reads as follows: 'William Watson Woollen, born May 28, 1838, died March 26, 1921. This tract was given by him to the city of Indianapolis December 9, 1909.—Nature Study Club of Indiana.'

"The Indiana Historical Society and the Indiana Audubon Society joined in the memorial ceremony to do him honor. Professor Stanley Coulter, Dean of Purdue University, Judge Robert W. McBride, Dr. Frank B. Wynn, President of the Nature Study Club, and Charles W. Jewett, Mayor of Indianapolis, were the speakers."

AIR-COOLED BIRD-HOUSES

It has not been unusual to receive reports that during the hot days of summer young birds in small, close, nesting-boxes have been killed by the heat of the sun, and the writer has on more than one occasion seen instances of this character. To avoid such catastrophes and to render life in an artificial nest as comfortable as possible, various experiments have been made to construct these boxes in such a way that the heat of the sun would not be so penetrating. One nature-lover who has recently devised what he considers a very

practicable bird-house, which may always be depended upon to keep a reasonable temperature in summer, is E. A. Gilman, of 519 E. Conant Street, Portage, Wis. Mr. Gilman gives the following description of this type of bird-house which he has found to be very satisfactory:

"Air-cooled shelter bird-houses are designed and constructed to secure automatic removal of sun-heated air from their interior, allowing the constant force of gravity to effect an exchange of sun-heated air in open

vertical shafts back of exterior walls or in attic, which heated (lighter) air is by gravity forced up and out of protected slot opening along the ridge pole of the roof, by and for cooler (heavier) air rising from beneath the bird-houses. This operation automatically occurs and continues whenever and while the temperature at any point inside of air-shafts or attic is warmer than the air beneath the bird-houses and irrespective of a dead calm or breeze or wind.

"The same principle is utilized in many ways in live-stock, hog and poultry buildings, the 'animal-heated air' automatically rising and passing out ventilators in roof; in prune- and other fruit-driers; in ventilating hotel and restaurant kitchens; in warm-air furnaces; in the latest Rochester hand-lamps, etc. the air in exhaust flues, hot-air pipes, and chimneys heated from burning fuel, lighter than cooler air beneath being automatically forced out above.

"Heated air rises vertically; it will not move horizontally except by being forced by wind or draft as natural forces, thus making openings through walls at side or end only, of other bird-houses, of little or no avail in a dead calm or slight breeze (a very frequent occurrence) to relieve the interior of the heat of the sun.

"Shielded from both storm and the sun's rays by separate exterior walls and roof, and also shielded from the sun's heat penetrating same, by intervening ascending columns of air in surrounding air-shafts etc., the temperature of 'air-cooled shelter' nesting-boxes and the air therein will remain the same as that of the air beneath, and the interior of nesting-boxes will be free from rain, sun's

heat and cold drafts detrimental to hatching and to young birds.

"White or yellow paint on tops of roofs and even on sides where there are no entrances will reflect to some extent the heat rays from the sun, and not be objectionable to the birds.

"Entrance extension on each side with horizontal slot for passing of nest material will speed the nest-building.

"Wire sand screen of close mesh with hole cut to fit snugly around entrance on inside of exterior wall, and cut to fit snugly beneath and at sides of entrance on outside, fastened with screen staples, will remedy trouble arising from smooth and slippery surfaces around the entrance, and aid the birds in passing in and out, and in fighting off from the inside any marauding birds.

"Shelter from the roasting heat of the sun can be easily provided to quite an extent in case of old-style bird-houses, as follows:

"Installing an extra roof raised above the original by furring strips $\frac{1}{2}$ to 1 inch thick, running from eaves to ridgepole, leaving open air-shafts between original and extra roof, and an opening of 1 inch between roof-boards at and along the ridgepole for exit of heated air. Furring strips when placed should be thoroughly painted in manner to exclude moisture beneath them."

Mr. Gilman is not in the business of making bird-boxes for sale, and is very glad to pass on his ideas to others. He writes that he will be pleased to supply assistance to anyone who may care to follow his plan. For 25 cents each he will furnish 5 x 7 photographs showing (1) exterior, (2) interior, and (3) complete description.

NEW LIFE MEMBERS

Enrolled from October 20, 1921, to January 1, 1922

Abbott, Gertrude	Janssen, Henry
Abbott, W. L.	Johnston, Norwood,
Bird Conservation Club (Maine)	Keith, Elizabeth N.
Burdet, A.	Kissel, Mrs. Gustav E.
Carnahan, Mrs. Melissa S. McKee	McCormick, Mrs. Edith R.
Cooper, Mrs. James Fenimore	McCormick, Mrs. Sarah L.
Cox, Caroline	Mather, Samuel
Davis, Ernest H.	May, Mrs. E. C.
Devereux, Richard Irving (In Memoriam)	Miner, W. H.
Dows, Mrs. David	Morgan, J. P.
Fox, Caroline A.	Oliver, William B.
Garvan, Mabel Brady	Potts, Mrs. William M.
Gratz, Anderson	Sahm, Virginia
Hinchman, Margaretta S.	Sheffield, William P., Jr.
Hussey, Mrs. Frederick	Strong, Mrs. Converse
	Versein, Madame René

NEW SUSTAINING MEMBERS

Enrolled from October 20, 1921, to January 1, 1922

Ady, Olivia Parker	Dennis, Miss Bartha P.
Allen, Mrs. Clifford B.	Eaton, Mrs. Elizabeth F.
Andrews, A. C.	Fowle, Miss Elizabeth King
Arnold, Lowry	Franklin, W. S., Jr.
Ashforth, George, Jr.	Fritschy, Walter A.
Belknap, Juliet R.	Frost, Miss Lula E.
Beller, A.	Frothingham, Miss Anne W.
Billings, A. S., Jr.	Fuller, Egbert C.
Billings, Geo. D.	Garfield, Miss Lucretia
Blanchard, Leon F.	Gilder, Rodman
Bliss, Edith M.	Gillespie, John A.
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Breck, Daniel	Glackens, Miss Lenna
Bross, Mrs. Mason	Gray, Mrs. Albert Z.
Brown, Anna M.	Hawthorne, Mrs. Wm. B.
Bryant, Guy A.	Hill, Dr. Samuel S.
Buchner, Miss Lucy R.	Horstmann, Mrs. Walter
Burdett, Mrs. Cyril	Howard, McHenry
Carr, Mrs. Cora Elizabeth	Hoyt, Mrs. John Sherman
Cartwright, Mrs. Bruce	Hubbard, Mrs. W. S.
Cartwright, Bruce, Jr.	Huntington, R. W.
Chapman, Mrs. William P., Jr.	James, Mrs. Walter B.
Cheney, Clifford D.	Kennard, Harry
Clark, George R.	King, Mrs. Edward
Crews, Mrs. Elizabeth S.	Kirk, E. B.
Darling, Master F. B.	Kuhn, Harry Addison, Jr.
Delano, Morean	Libby, Gertrude C.
Dennig, L. E.	

NEW SUSTAINING MEMBERS, continued

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McCoy, Mrs. W. T.	Schmidt, Henry
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McIntosh, Franklin Gray	Smith, Kirby
Marshall, H. L., Jr.	Smithman, J. B.
Matuszak, Roman	Snowdon, Geo. H.
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Nature Study Club of Pittsburgh.	Spear, H. M.
Neilson, Winthrop C., Jr.	Stevenson, Henry Hoyt
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Reed, Mrs. George W.	Wilson, Mr. and Mrs. R. I
Rice, Mrs. Phillip	Women's Contemporary Club
Richards, Mrs. R. L.	Woodward, S. B.

TO CORRECT A GREAT EVIL

The National Association of Audubon Societies, together with other organizations and individuals, has for some time been calling the attention of the public to instances of fearful destruction to water bird-life caused by oil-burning and oil-carrying vessels pouring oil and oil-soaked bilge water into our harbors along the coast. At times immense numbers of wild fowl have been destroyed in this manner. Especially to those who are familiar with this growing evil will it be of interest to know that at last a movement has been started in Congress to check this destructive agency.

On January 3, 1922, Congressman Hicks introduced into the House of Representatives a joint resolution (H. J. Res. 247) authorizing

and requesting the President of the United States to call an international conference of maritime nations to consider the advisability of entering into an agreement to control the pollution of the navigable waters of the world on the part of oil-burning and oil-carrying vessels through the dumping into said waters of oil waste, fuel oil, oil sludge, oil slop, tar residue, and other water ballast impregnated with oil, and the resolution was referred to the Committee on Foreign Affairs, House of Representatives. This is a step in the right direction toward an effective control of what is becoming a very serious menace not only to our migratory wild fowl, but to other forms of life in the sea and bays and lower courses of rivers.



1. RED-WINGED BLACKBIRD, MALE, SPRING

2. RED-WINGED BLACKBIRD, YOUNG MALE, FALL

3. RED-WINGED BLACKBIRD, FEMALE, SPRING

4. BICOLORED RED-WING, MALE SPRING

5. TRICOLORED RED-WING, MALE, SPRING

6. TRICOLORED BLACKBIRD, FEMALE, SPRING

Bird-Lore

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No. 2

When the Birds Come North

By GRACE A. HILL, Pullman, Wash.

ONE cold day in April, while we were having a snowstorm, the Eider Ducks began to pass Synuk (a native village 30 miles north of Nome). The Eskimo children said "ropes and ropes of them." They flew over the frozen ocean about a quarter of a mile from the shore. For over a week there was no time in the day when at least one black cloud was not visible drifting past, and often for hours at a time there was a constant procession. While they did not form the V of many migrating birds, they seemed to follow a general head and often several long 'ropes' trailed out behind the flock. In these the birds followed each other so precisely that the lines swept and curved with as perfect undulations as though they were ribbons blown in the breeze. Some of the Eskimo men hid, with their rifles, under projecting pieces of ice, in the zone over which the birds were passing. Soon they returned with as many Ducks as they could carry—whereupon the village had a period of feasting. Contrary to what might be expected, the birds were fat, and their flesh, unlike that of the same birds in the fall, was of good flavor.

The male King Eider, when he comes north, is a beautiful bird, with orange-yellow ear coverts, a lavender crown with soft green side-stripes, and a warm cream-colored breast. He has a white patch on each wing and white tail coverts, and for the rest is shining black. Before he goes south in the fall, however, he has changed this gay attire for a plain brown dress much like that which the female wears north.

Practically all of the Eiders passing Synuk were King Eiders. A small flock of the Northern or Greenland Eiders, however, summered on Sledge Island (an island in Bering Sea about five miles from the village).

At Synuk the ocean ice breaks up about June 1. For a week the flocks drift about near the shore or lie idly basking in the sun, and for the only week in the year when not ice-bound the habitually stormy water is held in subjection. The birds seem enamored of this smooth sea, with its floating ice-cakes, and go drifting back and forth over its surface. For many it is still the vacation period, before the nesting-time. Their cries make a rare medley. There is the

strange screaming of the Loons, the harsh *te-ar-r* of the Terns, the weird *oo, oo, oo-a-oo*, of the Old Squaw Ducks, the more or less distinguishable notes of the other Ducks and of the Geese, all mingled with the constant shrill crying of the Gulls.

Quickly the scene changes. The ice goes out, perhaps in a night, to leave a stormy water. The birds disperse to their nesting-places, and only the eternal Gulls go dipping and sailing by, with now and then an energetic trio of Loons.

Simultaneously with the game-birds come the little songsters. A young native once told me that these birds come on the backs of the large ones. He



GULLS AT SEWARD, ALASKA
September 3, 1916

declared that he had many times seen several small birds on the back of one large Goose. The idea is, however, no more strange than that such frail creatures can cover so vast a distance, in a stormy season, and over a frozen forbidding land.

When the birds arrive in the Arctic the only food for them is to be found where the snow has melted from the small tufts or 'nigger-heads' of the tundra. Indeed, the birds always seem to arrive in advance of the first bare spots. On these spots are last year's seeds and berries. It is not uncommon, when walking over the tundra in May, to come upon one of these bare spots and startle a cloud of birds into flight.

When viewed from the Arctic standpoint, a bird's life does not appear to be all joyous and easy. To rear her young under the most favorable circumstances she leaves the land of easy food and warmth and sunshine to face privations and hardships. She beats her way north, often against stormy winds, and arrives in the land of her destination to find it ice-bound. But she must not delay her departure for her tired body must be rested before the snow has gone and nest-building time is upon her, for then there will be no time to

lose, else her birdlings will be too small to take the trip when the brief summer has passed.

There is, however, one really joyous time in the north. It is the mating season. The tundra is then in a social whirl. The air seems fairly alive with darting singing birds. Then, too, the birds are dressed in their gayest plumage. Those who know them in the south would scarcely recognize them now.

If you walk out on the tundra toward the last of May you may imbibe some of this joy of living. Here, near you, is your old friend the Robin, in his rejuvenated dress of red and black and gray. Not far from him, in plainer attire, is his mate. He approaches her with a short, quick run and then, tilting his head, carols her a sweet if monotonous little song, *Hurree, hurree, hurree, hurree, hurree*. After a second she gives her answer. It is merely a little run, the length of his and from him. He repeats his maneuver and she hers.

Your attention is called here to a series of low musical whistles. All about you are little gray birds soaring and swooping. They are the Pectoral Sandpipers and the whistle is a mating season accomplishment of the male. It is the most characteristic sound of the tundra at this season. When you tip your head to watch these birds, and hold your breath that they may come near, you are suddenly rewarded for your silence from an unexpected quarter. Upon a knoll at your very feet a beautiful Longspur swells his throat in a torrent of glad song. Then he rises slowly in the air and, after pausing a moment on vibrant wings, floats gently back to his place, singing the while his limpid melody.

Before long the gay season will be over and the birds will be as quiet as though they were sleeping. The realization of their mission is now full upon them. Above them ever circles the watchful Jaeger. Some family must be left bereaved if he is to dine. The Arctic Owl, too, who now must hunt in the daylight, there being no darkness, does so alarmingly well. Besides, a sly little, gimlet-eyed ermine is some place noiselessly stalking through the tundra grass. There are no snakes, however, which should considerably gladden the heart of a brave little mother bird.

Between the first and the middle of June let us again walk upon the tundra. It is gay now with sunshine and beautiful nodding flowers. There are some butterflies, too, and big busy bumble-bees. You must walk warily for from under your very feet now and then will flit one of the many little somber-colored birds that nest on the tundra. Among the most common are the Savannah Sparrow and the White- and the Golden-crowned Sparrows. If you stop and search patiently for a minute you will find, cleverly concealed by dead grass, an exquisitely neat little nest. It is lined with down and the woolly tops of the cotton grass, and every tuft of down and silky thread is precisely where it should be. The nest will probably contain three or four small mottled eggs. In a week or two, if you walk again, you will see the naked, open-mouthed birdlings.

Almost before we realize it, the brief summer is passing; heavy frosts are upon us. Then there are twitterings and consultations—and suddenly the song-birds have gone.

The Arctic song-birds often elude classification. Their characteristics peculiar to the mating season are apparently not always well known to the ornithologist in the south.

Among the larger birds that visited us were the Emperor Goose, Canada Goose, Old Squaw or Long-tailed Duck, Pintail (nesting near the village), and the Mallard. I saw only one Canada Goose in our vicinity, a crippled gander feeding by himself in a stream-bed. The Red-faced Cormorant and the Black-throated and the Red-throated Loons nested on Sledge Island. On June 16 a native shot a Whistling Swan on a lagoon back of the village. The bird measured 56 inches and weighed, when dressed, eighteen pounds. On the lagoons we had both the Northern and the Red Phalarope. Back of the village, on Bolder Creek, the little Sanderling nested. We also had the Pectoral Sandpiper, the Dowitcher, and the Hudsonian Curlew. On lonely hillsides the Golden Plover ran, uttering its sweet wild *ter-lee*. Our most common Gull was the Herring Gull. Back on the banks of Synuk River nested that little desperado, the Arctic Tern. He darts at the heads of passers-by, and the Eskimos believe he wishes to pick out their eyes.

When the game-birds go south, they do not leave so unpretentiously as do the little songsters. The Sandhill Cranes were apparently the first to go. The miners who are back among the hills, where are their nesting-places, say they begin to congregate several weeks before they migrate. Some convenient hillside is the meeting-place, and here there is much noisy coming and going. Early and late they keep up a constant clamoring, consulting and arguing. At times, too, a large party will make a short tour, perhaps trying out for captaincy. In due time the plans are complete. The flock rises in the air, all the while bidding us a noisy good-bye. They stretch their long necks like magnetic needles to the south, and they are off. There is no changing of plans now. There is no returning for something forgotten or a new start. They have gone and we will see no more of them for seven long months. The Swans are the next to go, flashing their great white wings against the blue sky. Then quickly follow the Ducks and Geese.

Of all the birds who come to us, I should dislike most to miss the passing of the Canada Goose; and, indeed, they would not have us miss them. Their honking may be heard before they are in sight, and it swells in volume until the great flock in a symmetrical V, their strong wings beating the air in unison, sweeps overhead. They are the embodied spirit of the changing seasons. When they have gone, the portals of the Arctic, which opened in the spring to let the birds come north, close again behind them.

The Friendly Phœbe

By CLINTON G. ABBOTT

With Photographs by the Author

UNTIL we opened our summer home on May 15, the Phœbes had the broad veranda all to themselves. From their nest on a pillar in the corner, they could look peacefully out over smooth walls and floor, unbroken even by the presence of a chair; and this empty 'cavern' doubtless suggested to their minds an admirable counterpart to the weather-worn cliffs where their ancestors had placed their nests for generations before man began to build houses and verandas.

Then in a day all was changed. Awnings, rugs, and becushioned chairs suddenly appeared, of a brilliance quite unsuited to the taste and nerves of a demure Phœbe. The 'cleaning ladies,' who prepared the house for our arrival, apologized that they had not removed the unsightly mass of moss and mud from the pillar top, because "they were not sure that Mr. Abbott would want to have a bird's nest destroyed." They were right; Mr. Abbott and his whole family found the nest a center of great interest and education from the very first day.

The initial problem was to see whether the Phœbes, who had five eggs in their nest, could adjust themselves to the sudden and complete change in their immediate surroundings. More terrifying than the furniture were now, doubtless, the people who constantly moved to and fro upon the veranda. The children, who seemed to have a way of wanting to play directly beneath the nest, must have been particularly disquieting. Certainly the first few days following the arrival of the human family were hectic ones for the naturally retiring Phœbes. At every opening of a screen-door—even at the moving of a book—Mrs. Phœbe would spring from her nest in alarm. Then a long period of hesitation and tail-twitching would ensue before she could pluck up courage enough to return to her eggs. She would flit nervously to the tip of a young spruce, then to a syringa bush, then to the rain-water gutter, then back again to the spruce—and repeat the round. Sometimes she would thoughtlessly settle for a moment upon one of the outer branches of a certain lilac bush, only to be promptly ousted, with loud bill-snappings, by a pair of irate Robins who had their home there.

It was almost pathetic to watch the poor Phœbe's mental conflict between the instincts of self-protection and love for her eggs, and more than once we really hoped that she would abandon the struggle, with consequent peace of mind, not only to herself, but us! Indeed, once or twice we were sure that she had reached this decision, when she remained absent from the veranda for hours, and could be observed in the distance playfully twittering and caressing her mate, as though in anticipation of a fresh nest. But nightfall always found her back upon her eggs, and to her credit let it be said that within a week

she had succeeded in completely readjusting herself to the new conditions. From her original shy and timid self, she was metamorphosed into quite a different type of bird, stolidly remaining seated upon her nest regardless of sudden noises or the movements of people. Persons could now stand and converse unheeded, though their heads were but a few inches from her. Even the activities of our dog—formerly the cause of especial alarm—were calmly observed by merely cocking her head over the edge of the nest.



TWO PHOEBE POSIES

In spite of fears we had entertained as to possible chilling of the eggs, the babies were all successfully hatched. They were tended with utter fearlessness by their parents, who now continually used the backs of veranda chairs as resting-places en route to and from the nest. Persons—even whole tea parties—were ignored, except that once or twice we thought we detected a tone of annoyance in the Phoebe's voice upon finding a favorite chair occupied! No particular objections were raised by the parent birds when we wanted to exhibit their little family to visitors, which was done by holding a hand mirror above the nest.

It happened that the rose bushes which bordered the veranda had been

injured by frost during the previous winter, and many dead shoots extended above the green foliage. Upon these shoots the Phœbes also very often alighted, when bearing food to their young and, after the food was delivered, it was common for them to drop again to one of these perches for a brief reconnoissance of the field before starting off on another air-raid. As the rose bushes were in the sun, we saw here an opportunity for photography, and therefore pruned off all the bare shoots but one—a conspicuous and favorite one below the nest. The sole resting-place we had left was entirely satisfactory to the Phœbes, and they used it frequently. By setting the camera on the veranda and focusing it upon the dead shoot, it was a simple matter to secure close-up and characteristic portraits, without blind or concealment.



PATIENCE—ON A TWIG

When it became evident from the restless shifting of the young Phœbes in the nest that they would soon be leaving their already overflowing cradle, we decided to add their picture to the series we had already secured of their parents. So we gently removed them from their nest and arranged them on a branch before the camera. During this operation one of the five escaped from us by flying over the hedge and becoming lost in the standing hay, but we photographed the four others in various poses, and then returned them to their nest. Only two of them were content to remain in their old nursery, however, and then only one night longer. For several days thereafter we often saw all five of the birdlings, whose unceasing demands upon their parents kept them hustling for food. We never observed any of the babies attempt to gather a meal for himself, though sometimes one of them would follow the flight of an insect with an interested movement of his head.

Then, with that suddenness which is one of the mysteries of the bird world,

all the youngsters disappeared, and the old Phœbes were busy with preparations for a second brood. With incredible ease they repaired the crushed and soiled nest, so that it looked as good as new, and in due time it contained two eggs. The following day the nest again was empty. What had become of the eggs?

How often the bird student encounters this same problem—unaccountable disappearance, between successive visits, of the eggs in a nest he has under observation. For want of better explanation, he attributes it to 'the tragedies of bird life.' But may it not be that for reasons not clear to us birds sometimes devour their own eggs? We are told that the rabbit, a herbivorous rodent, will eat her newborn young if she fancies that they are in danger. It is no more difficult to believe that birds might make away with their eggs in the same way. Certainly it seems difficult to explain otherwise the sudden disappearance (as not infrequently happens) of eggs in a cage-bird's nest, where only one pair of birds occupies the breeding-cage. For that matter, the Phœbe's nest had almost the security of a cage. Perched high on the top of a smooth pillar, its upper edge was only a couple of inches from the veranda ceiling; and no known enemies lived close by—not even a House Wren.

At all events, as was to be expected, the nest was now 'hoodooed' and was deserted. The pair of Phœbes remained about, however, and we soon began to notice scraps of moss and other nesting material blown by the wind across the veranda floor. Investigation showed that the birds were evincing interest in the top of the next pillar, this time having selected that portion which was outside the awning and hence invisible from the veranda. The expression 'evincing interest' is used, because it could not in any sense be said that the Phœbes were building. Sundry wisps of vegetable matter would be laid in haphazard manner upon the flat top of the pillar, only to be carried away by the next breeze. We believe that the Phœbes were merely experiencing the half-hearted nest-building instinct, of which birds are sometimes possessed in the fall, and which is manifested by aimless picking up and dropping of straws, and the like.

But when these activities were maintained with some persistence for about three days we began to seek a definite cause for their lack of success. So far as quantity of materials was concerned, there could be no criticism; but each load would be gone when the next arrived. Why, we thought, do they not make the usual foundation of mud, by which to anchor the rest of the structure? Then the truth dawned. It was in the midst of the long-protracted drought for which the summer of 1921 will long be remembered, and mud was a commodity not to be had except near large and constant bodies of water. We figured that it was at least a quarter of a mile to the nearest stream, and this was probably beyond the Phœbes' radius of operation.

We decided to try an experiment to help the birds. Moving a bird-bath from another part of the garden, we mixed therein a mud-pie of delightful

moist consistency, and placed it upon the lawn close below the Phœbes' chosen pillar. To make sure that our home-made mud should consist of the ingredients that most appeal to a Phœbe, part of the bath-tub contained dissolved portions of the original Phœbes' nest. Did our feathered friends make use of this assistance? In the language of the day, I'll say they did. Within a few minutes they discovered our offering, and thereafter the trips from bowl to pillar were made with almost feverish continuity and speed.

In the joy of the new-found mud, Mrs. Phœbe (we assumed it was Mrs. who seemed to do most of the building) splashed a veritable circle of mud about her scene of operations on the new pillar top. In a surprisingly short time the foundation of the nest was built. Indeed, so rapidly was the work done that we unwittingly allowed the best opportunities for photography to pass unused, and the only picture we got of the Phœbe at her mud-bath was late in the day when the light was poor.

As for the further history of our friendly Phœbes, they simply 'lived happily ever after.' Four eggs were laid in the new nest, duly replaced by four healthy birdlings who started their careers in the great wide world on the morning of August 1.



AT THE MUD BATH

Caught in a Springtime Blizzard

By MARGARET A. BARTLETT, Boulder, Colo.

A BLIZZARD occurring in the midst of spring, after weeks of warm, mild weather, when the grass has grown green, the crocuses and daffodils have blossomed and passed by, and the leaf-buds on the trees and bushes have swelled and partly burst from their wrappings, is hard enough on human beings who have emerged from their winter's shell, only to be driven back, but to the birds who have arrived from the Southland, such a storm spells suffering and disaster. Yet just such a storm occurred in the mountain states of the West the latter part of April, 1920. Larks, Robins, Killdeer, Bluebirds, House Finches, all had been with us for more than a month. Morning after morning we had been awakened by their songs. The House Finches, merry little carollers, had even begun the construction of a nest in a pocket formed by the close-clinging limbs of a poplar tree. "Summer is coming, and springtime is here!" was the thought continually with us.

And then came a sudden drop in temperature, a cold wind, and snow. For two nights and a day it snowed without ceasing, and for still another twenty-four hours the wind blew relentlessly, piling the snow in huge drifts such as we had not seen before during the winter. Around our house the wind had swept almost a clean path. Only a half-inch or so covered it at any time, and this quickly melted as soon as even the faintest of the sun's rays struck it. The pasture across the road, flat and treeless as the top of a table, showed not one inch of bare ground; neither did the fields at the sides and back of the house. The only possible feeding-ground for the birds, therefore, was the broken circle in our yard.

There it was they came in flocks. There were, of course, the Juncos who seemed to enjoy the winter weather, and then there came the Robins. Poor birds! It was pitiful to see them run along on the snow, cocking their heads from side to side as if listening for worms, when you knew they were a foot or a foot and a half from the ground and the home of angle worms! Yet habit was so strong in them that even when they were picking up the grain and crumbs that I had thrown out, they assumed the listening attitude as they ran over the ground. When they struck the open space, however, their listening was not in vain. There were worms, many of them, drawn to the surface by the moisture from the melting snow, and the hungry Robins were quick to detect their presence and after a struggle pull them out from their hiding-places. Not just two or three Robins came around, but a dozen and more could be seen at almost any time of the day, listening for worms. The fights that ensued were many, for the Robins proved themselves very quarrelsome birds.

Once I witnessed a spirited engagement between a Robin and a Meadow-

lark. The Meadowlark won. With its long bill it quickly put Cock Robin to a disgraceful flight.

The Meadowlarks seemed uneasy near the house. Though they had oftentimes sung from a tree-top in the yard, or even from a fence-post, they had never before, to my knowledge, alighted in the yard. Now they were forced to do so in order to find food. They would fly down some distance from the wind-swept path, and then come cautiously waddling across the snow—there is no word but waddling which adequately describes their progress over the soft, unfamiliar snow. Though alarmed by the slightest movement at a window, they were hungry and they liked the grain. Therefore they ventured nearer and nearer the house, consuming large quantities of the grain in the short time they dared remain where danger seemed so imminent. They had no difficulty whatsoever in making way with the large kernels of grain they found: the Robins, on the other hand, ate grain much as we would eat hay! It was something to keep them alive, but they could neither relish it nor master the art of eating it daintily.

Sometime after the Meadowlarks had braved the perils of a close approach to the house, the Killdeer made tentative excursions into the yard. For long they circled about overhead, uttering their cry of *killdeer, killdeer*, urged by hunger to seek food on the bit of open ground, yet fearing to approach so near a human habitation. Eventually, however, a pair of them, screaming, settled on the wet ground, within a few feet of our windows. Immediately they became absorbed in their search for food. They, too, listened for sounds of life hidden in the mud, but not in the manner of the Robins. The Killdeer did not cock their heads on one side and then on the other. They listened with heads held straight in front of the body, but oftentimes they stopped to listen, balanced on one foot or with one foot slightly in advance of the other. No difficulty at all was encountered by the Killdeer in unearthing small insect life, but when worms were heard and their position located, then there was trouble. The Killdeer's slender legs, with their high joints, were never built for bracing the body, as are the stout legs of the Robin. Consequently, as soon as a bird had pulled a worm about half out of its hole, the strength would leave its legs, it would be forced to 'give' to the worm a bit, and the worm would quickly seize the opportunity to wiggle far down into the soft earth. In the two days that the Killdeer were about the house almost all the time, I saw but two worms successfully landed, though dozens of attempts were made.

A slight movement at a window always sent the Killdeer into the air with the most plaintive scream I have ever heard. "Oh, dear, dear, dear, dear, dear" they seemed to cry as they spread their wide sea-bird-like wings and circled away from the suspected danger zone to which, however, they returned in a very few minutes.

The Bluebirds, who heretofore had not left the orchard, made several

visits. These spring arrivals were not the familiar chestnut-breasted Bluebird of the East, but the Mountain Bluebird, a bird with beautifully shaded upper parts of blue, but with a breast of soft grey. Yet, watching them from a distance, one knew at once they were of the Bluebird family.

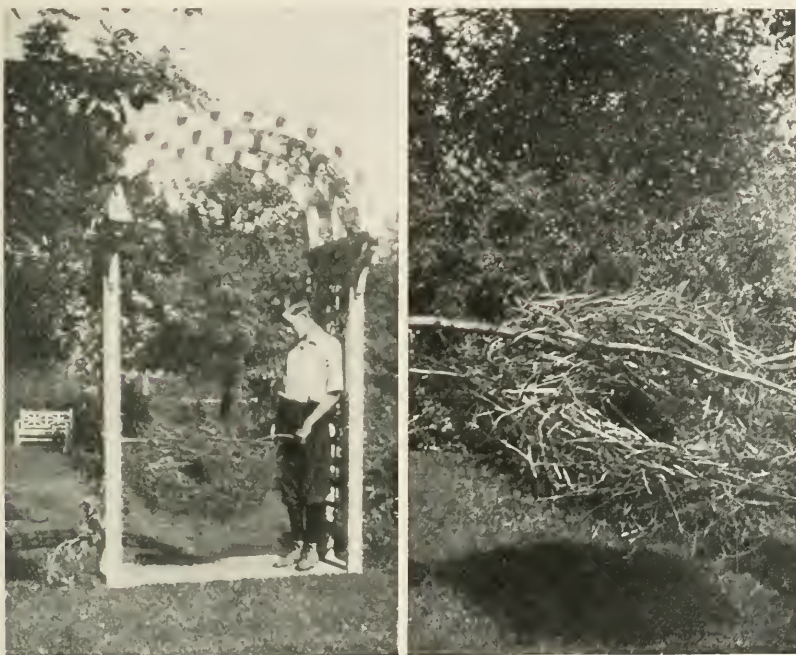
Pheasants grew friendly; Flickers were glad of a bit of grain; even the Lewis's Woodpecker discovered a crust of bread in the snow and made repeated excursions to it, always leaving in the soft snow the trail of his long, forked tail. One queer little Sparrow, marked with golden brown stripes, appeared often with the Juncos who never seemed to pay the slightest attention to us. How it came to be here, all alone, was a mystery. Another lone little bird whose acquaintance I was delighted to make was Audubon's Warbler. I saw it first intently searching the bark of a tree for food, quick, active, happy, in spite of deep snow on the ground and the raw wind that was blowing. At first I mistook it for the Myrtle Warbler, but, on closer investigation I discovered that the throat of this bird was yellow, rather than white, a marking which at once distinguished it from the Myrtle Warbler. Again I wondered how one lone little bird should be abroad on such a day.

The Finches were strangely absent. The friendly little pair who for weeks had been singing to us from the poplars and the apple trees disappeared completely. Where were they? And where are they? The warm days have returned; the snow is gone save where the deepest drifts were piled; the Killdeers keep close to their irrigated pasture; the Meadowlarks no longer venture into the yard, and four Robins are the most to be seen at any one time. Other birds have arrived. There is a Crested Flycatcher which perches on the telephone wire outside my window and wakens me with his call each morning. There are the Mourning Doves answering each other from distant trees with their sad, sweet *coo a-coo-coo-coo*. The Yellow-headed Blackbirds have joined the Redwings. The still leafless treetops have been dotted with tiny feathered balls of golden yellow—dozens of sweet-voiced Goldfinches. But the House-Finches have not returned to the nest-building over which they worked so happily before the storm. Is it possible that they fell victims to the spring-time blizzard?

A Nest-Building Parrot*

By MARY B. SHERMAN, Ogdensburg, N. Y.

IN MAY, 1920, two Parrots escaped from their cage. They soon made their way to my garden, which has been a bird sanctuary for seventy years, and throughout the summer spent most of their time in this neighborhood. They seemed to find plenty of food in nearby chicken-yards, and they also fed on the tender green shoots of the trees and delighted in apples as soon as they were formed.



NEST OF THE MONK PARRAKEET
Built in Ogdensburg, N. Y.

Of course, we tried to feed them, but for some time they were very shy. As the weather grew cooler they learned where to find food and came daily to window-sills and piazzas where it was left for them.

In July, they began building a nest. The first one was made of twigs very loosely woven, well camouflaged, as the green leaves were left on the twigs. It was shaped like a Robin's nest and placed *on* a small branch in a tall maple, about a half a block from my home. It seemed to be completed and I saw one of the Parrots sitting in it, when a strong wind brought it to the ground.

*A detailed description of one of the birds, still living, whose interesting history is given in this article, shows it to be the Gray-breasted or Monk Parakeet (*Myiopsitta monacha*) of southern Brazil to Uruguay, a species noteworthy for communal nest-building habits.—ED.

In a few days they commenced a second nest which was quite different. This was round, more like a Marsh Wren's, and was built around a slender branch, $1\frac{1}{2}$ inches in diameter in its largest part, high up in a nearby elm. This nest is truly remarkable. It measures thirty-nine inches in diameter one way and thirty-three inches the other. It is firmly woven of small twigs, from which, in time, the leaves fell. The branch runs *through* the nest, and on this the birds roosted, as the bark is all worn off by their feet. In the front of the nest is a round opening about 5 inches in diameter and in this doorway both Parrots would sit billing and cooing and talking to each other in Parrot language, while we watched them from below. As cold weather drew near, we were greatly distressed fearing they would freeze in our cold northern winter, and we tried in every way to capture them with traps which the Bird Club had made. Three different nights the Mayor had the firemen go up to the nest on extension ladders but each time the birds were aroused and escaped. Everyone became interested and there was hardly an hour in the day that there was not an audience on the walk below watching the Parrots. In December I went to California leaving the birds feeding on the snow under my window. They had grown very handsome, their feathers thick and fluffy, and they had plenty of food for everyone in the neighborhood had a place where food was kept for them. When they found something they especially liked they would fly to a veranda railing or tree where the male would break off small pieces and feed them to the female. Certainly they had had the time of their lives, and I really believe that they might have lived through the winter, for the nest seemed warm, but it was so large and on such a slender branch that we feared it would fall when covered with ice and snow. Before Christmas word reached me that both birds had been trapped. They were returned to their owners, but alas during the winter one died, and in the spring the other was liberated. It was pitiful to see him in his old haunts calling for his mate. I believe he has now been captured again and I hope has a happy home. The firemen again went up into the tree, sawed off the limb which held the nest and saved it for me.

The Migration of North American Birds

SECOND SERIES

XVIII. RED-WINGED BLACKBIRDS

Compiled by Harry C. Oberholser, Chiefly from Data in the Biological Survey

RED-WINGED BLACKBIRD

The well-known Red-winged Blackbird (*Agelaius phoeniceus*) in some one of its many forms is found throughout most of North America. Mexico, and Central America, north to Quebec, Mackenzie, and British Columbia, and south to Costa Rica. Northward and eastward it is migratory, but the California races and those along the Gulf of Mexico seem to be mostly resident. The distribution of the North American subspecies is given below.

The **Florida Red-winged Blackbird** (*Agelaius phoeniceus phoeniceus*) is resident in the southeastern United States from southern Florida (excepting the southeastern coast and the Keys) north to the coast region of South Carolina, to southern Alabama, southern Louisiana, and southeastern Texas.

The **Bahama Red-winged Blackbird** (*Agelaius phoeniceus bryanti*) is resident in southeastern Florida, the Florida Keys to Key West, and in the Bahama Islands.

The **Rio Grande Red-winged Blackbird** (*Agelaius phoeniceus megapotamus*) is resident in central southern Texas, Tamaulipas, and northern Vera Cruz, Mexico.

The **Eastern Red-winged Blackbird** (*Agelaius phoeniceus predatorius*) breeds in the northeastern United States and southeastern Canada, north to Nova Scotia, Quebec, and Ontario; west to central Ontario, central Wisconsin, Iowa, Missouri, eastern Oklahoma, and northeastern Texas; south to northern Louisiana, northern Alabama, and North Carolina; and east to the Atlantic coast from North Carolina to Nova Scotia. It winters regularly north to southern Virginia and Arkansas, occasionally to southern New York and northern Illinois; and south to the coast of the Gulf of Mexico from Florida to Texas.

The **Northern Red-winged Blackbird** (*Agelaius phoeniceus arctolegus*) breeds in central Canada and the central northern United States, north to northern Manitoba (central Keewatin) and southern Mackenzie; west to western Mackenzie, Alberta, and southeastern British Columbia; south to Montana, North Dakota, Minnesota, and northern Michigan; and east to northern Michigan and eastern Manitoba. In migration it wanders east to Ohio and Connecticut; and winters south to Texas, Louisiana, and Alabama.

The **Thick-billed Red-winged Blackbird** (*Agelaius phoeniceus fortis*) breeds in the central United States, north to Wyoming; west to Wyoming and central Colorado; south to northwestern Texas; and east to central Nebraska. It occurs, at least in migration, east to southwestern Minnesota, and winters south to northern New Mexico, southern Texas, and Louisiana.

The **Nevada Red-winged Blackbird** (*Agelaius phoeniceus nevadensis*) breeds

in the Great Basin region of the United States, north to southeastern Washington; west to Oregon, northeastern California, western Nevada, and central eastern California; south to northern Arizona and southeastern New Mexico; and east to central western Texas, New Mexico, southwestern Colorado, southwestern Wyoming, and western Idaho. It winters south to Chihuahua, Mexico.

The **Northwestern Red-winged Blackbird** (*Agelaius phæniceus caurinus*) breeds in the Pacific coast region, from southwestern British Columbia, including Vancouver Island, to western Washington. It winters south to northwestern California.

The **Kern Red-winged Blackbird** (*Agelaius phæniceus aciculatus*) is resident in Kern County, California, and apparently is a very local race.

The **San Diego Red-winged Blackbird** (*Agelaius phæniceus neutralis*) breeds in southwestern California and northern Lower California, wintering south to southern Lower California.

The **Sonora Red-winged Blackbird** (*Agelaius phæniceus sonoriensis*) breeds in northwestern Mexico and in the southwestern United States, north to southwestern New Mexico and central Arizona, west to eastern California, western Sonora, and western Sinaloa, Mexico; south to Tepic, Mexico; and east to Tepic, eastern Sonora, and southwestern New Mexico.

In the following tables of migration data the localities indicated by (*) pertain to the Northern Red-winged Blackbird; those by (†) to the Thick-billed Red-winged Blackbird; those by (‡) to the Nevada Red-winged Blackbird; and all the others to the Eastern Red-winged Blackbird.

SPRING MIGRATION

LOCALITY	Number of years' record	Average date of spring arrival	Earliest date of spring arrival
Weaverville, N. C.	4	March 1	February 10, 1894
New Market, Va.	28	March 4	February 19, 1909
White Sulphur Springs, W. Va.	6	March 2	February 17, 1897
French Creek, W. Va.	3	March 3	February 25, 1890
Washington, D. C.	21	March 2	Rare, winter
Philadelphia, Pa.	19	March 4	February 10, 1884
Renovo, Pa.	23	March 18	March 2, 1887
Beaver, Pa.	15	March 9	February 14, 1891
Morristown, N. J.	19	March 10	January 23, 1910
New York, N. Y.	20	March 15	February 22, 1884
Shelter Island, N. Y.	15	March 3	Rare, winter
Ithaca, N. Y.	10	March 12	February 1, 1902
Buffalo, N. Y.	9	March 23	March 14, 1913
Hartford, Conn.	25	March 20	March 5, 1910
Jewett City, Conn.	30	March 11	February 25, 1909
Providence, R. I.	22	March 14	February 22, 1906
Springfield, Mass.	7	March 19	March 9, 1898
Harvard, Mass.	7	March 11	February 22, 1909

SPRING MIGRATION, continued

LOCALITY	Number of years' record	Average date of spring arrival	Earliest date of spring arrival
Boston, Mass.	27	March 15	February 17, 1883
Bennington, Vt.	13	March 22	February 3, 1908
St. Johnsbury, Vt.	15	March 29	March 19, 1913
Tilton, N. H.	6	March 22	March 7, 1906
Portland, Maine.	9	March 20	March 21, 1904
Phillips, Maine.	10	April 7	March 28, 1905
Orono, Maine.	8	April 9	March 25, 1889
Montreal, Quebec.	12	April 11	March 22, 1897
Quebec, Quebec.	3	April 20	April 19, 1895
Scotch Lake, N. B.	9	April 21	April 8, 1916
Alberton, P. E. I.	9	April 9	March 30, 1898
Athens, Tenn.	8	February 26	February 1, 1903
St. Louis, Mo.	10	February 28	January 25, 1884
Concordia, Mo.	9	February 24	January 30, 1911
Chicago, Ill.	31	March 15	Rare, winter
Bicknell, Ind.	7	February 28	Rare, winter
Waterloo, Ind.	19	March 1	February 14, 1891
Wauseon, Ohio.	15	March 5	February 22, 1884
Youngstown, Ohio.	12	March 3	February 20, 1916
Oberlin, Ohio.	24	March 9	February 21, 1915
Vicksburg, Mich.	13	March 11	March 1, 1906
Detroit, Mich.	10	March 16	February 21, 1915
London, Ontario.	12	March 17	February 18, 1913
Ottawa, Ontario.	30	April 2	March 15, 1902
Keokuk, Iowa.	13	March 1	Rare, winter
Sioux City, Iowa.	10	March 12	March 4, 1905
Racine, Wis.	15	March 12	March 1, 1882
Madison, Wis.	19	March 14	March 7, 1904
Lanesboro, Minn.	10	March 28	March 15, 1889
*Minneapolis, Minn.	22	March 28	February 26, 1880
*St. Vincent, Minn.	2	April 14	April 14, 1897
Onaga, Kans.	27	March 6	February 15, 1902
Red Cloud, Neb.	9	March 10	February 28, 1909
†Rapid City, S. Dak.	11	March 25	March 14, 1916
Vermilion, S. Dak.	5	March 17	March 4, 1911
*Argusville, N. Dak.	12	March 13	March 7, 1894
*Aweme, Manitoba.	20	April 10	March 23, 1910
*Reaburn, Manitoba.	8	April 19	April 9, 1900
*Qu'Appelle, Sask.	16	April 21	April 3, 1910
*Ft. Simpson, Mackenzie.	3	May 13	April 28, 1861
*Yellowstone Park, Wyo.	2	April 7	March 29, 1914
†Rupert, Idaho.	3	February 27	February 16, 1913
*Rathdrum, Idaho.	9	March 2	February 12, 1900
*Terry, Mont.	8	May 1	April 11, 1906
*Missoula, Mont.	2	March 2	February 28, 1915
*Flagstaff, Alberta.	10	April 19	April 11, 1912
*Banff, Alberta.	4	May 2	April 11, 1906
*Mirror Lake, B. C.	3	March 24	March 14, 1911

FALL MIGRATION

LOCALITY	Number of years' record	Average date of departure	Latest date of departure
*Aweme, Manitoba.....	14	October 23	November 6, 1902
*Qu'Appelle, Sask.....			December 1, 1913
*Yellowstone Park, Wyo.....			October 13, 1915
Madison, Wis.....	10	October 31	November 23, 1913
Lanesboro, Minn.....	10	November 7	November 23, 1887
*Minneapolis, Minn.....	4	November 7	November 19, 1902
*St. Vincent, Minn.....	3	October 31	November 4, 1895
Keokuk, Iowa.....	11	November 19	Rare, winter
Concordia, Mo.....	7	November 8	November 20, 1914
Onaga, Kans.....	15	November 6	November 28, 1900
London, Ontario.....	4	October 27	November 4, 1902
Ottawa, Ontario.....	20	October 18	November 7, 1905
Vicksburg, Mich.....	11	November 4	November 26, 1902
Detroit, Mich.....	9	October 31	December 13, 1908
Chicago, Ill.....	11	November 2	Rare, winter
Bicknell, Ind.....	7	November 19	Rare, winter
Waterloo, Ind.....	8	November 5	November 21, 1905
Wauseon, Ohio.....	11	November 6	November 15, 1891
Youngstown, Ohio.....	8	November 13	November 20, 1915
Oberlin, Ohio.....	11	October 20	November 19, 1906
Athens, Tenn.....	6	November 3	November 25, 1908
Alberton, P. E. I.....	5	September 27	October 1, 1895
Montreal, Quebec.....	9	October 23	November 14, 1896
Boston, Mass.....	10	November 8	December 25, 1903
Harvard, Mass.....	8	October 20	November 26, 1914
Providence, R. I.....	6	October 15	October 28, 1906
New York, N. Y.....	2	November 22	December 7, 1901
Morristown, N. J.....	13	October 22	November 13, 1916
Beaver, Pa.....	4	November 17	November 26, 1890
Renovo, Pa.....	16	October 22	November 14, 1910
Philadelphia, Pa.....	8	November 1	November 28, 1915
Washington, D. C.....	4	November 20	Rare, winter
French Creek, W. Va.....	3	November 7	November 13, 1890

BICOLORED BLACKBIRD

The Bicolored Blackbird (*Agelaius gubernator*) has only a single subspecies in the United States, but at least two others in Mexico.

The Bicolored Blackbird of the United States (*Agelaius gubernator californicus*) is a permanent resident in central California north to Tehama County and south to King County. It is also of accidental occurrence at Casa Grande in central southern Arizona.

TRICOLORED BLACKBIRD

The Tricolored Blackbird (*Agelaius tricolor*) is a permanent resident, though local, in most of California excepting the southeastern, northwestern, and northeastern sections, and it ranges also north to central southern Oregon.

Notes on the Plumage of North American Birds

SIXTY-THIRD PAPER

By FRANK M. CHAPMAN

(See Frontispiece)

Red-winged Blackbird (*Agelaius phoeniceus*; Figs. 1-3). In accordance with the law among birds that when the male is brighter than the female, the young of both sexes more nearly resemble their mother than they do their father, there is no essential sexual difference in the plumage of nestling Red-winged Blackbirds. Both the juvenal male and the juvenal female are brownish black, margined with buffy or rusty above and broadly streaked with black and buff below. This plumage is worn for more than a month after the bird leaves the nest, and by a complete molt is succeeded by the first winter dress. The male (Fig. 2) for the first time acquires the red epaulet; it is, however, not so bright as in the fully adult bird, and is mottled with black. The rest of the plumage is black, but is widely margined or tipped with buff or rusty above, and by buff or whitish below. As the season advances most of these margins and tips wear, or fall off, and by May or June the bird is jet-black with but few traces of the fringes which so distinguish its winter costume. Indeed, so far as the body plumage is concerned, the bird born the preceding year is much like one that is two or more years old, but its epaulet still lacks the brilliancy of the adult and possesses the black mottlings of the first winter plumage. Mature plumage is therefore not acquired until the first postnuptial, that is, second fall molt. The bird is then in second winter plumage, which resembles that of the first winter (Fig. 2) but has the rich, red, unspotted shoulder-patch of the adult. Again by wear the rusty tips gradually disappear and by the following May (the second of the bird's life) we have the bright black, scarlet, and buff-shouldered bird shown in Figure 1 of the frontispiece.

The young female in the postjuvenal or first fall molt passes from one streaked plumage to another, and there is, consequently, much less difference between a young and an old female than between a young and an old male. Fully mature females (Fig. 3) have the 'shoulder' tinged with red, and the throat with reddish orange instead of yellowish, and after these marks are acquired they undergo but little seasonal change in color.

The Red-wing is found from Canada to Mexico and the West Indies, from the Atlantic to the Pacific. As might be expected, it exhibits considerable variation in this extended territory, its general size, the size and shape of the bill, and the color of the female being the characters most affected. These local or geographical variations have in a number of instances been described as races or subspecies. Doubtless no two ornithologists would agree on the number of these subspecies which are deserving of recognition by name. The Committee on Classification of the American Ornithologists' Union has

made no recent ruling in this field, and we consequently present Dr. Oberholser's views on the preceding pages as those of an expert who has devoted much attention to this group.

During the breeding season, when only one subspecies will be found at a given place, the various races may be known by the regions which at that time they occupy. But while migrating, or in the winter, when several races may be associated, positive field identification is not to be expected.

The **Bicolor Blackbird** (*Agelaius gubernator californicus*; Fig. 4) resembles the Red-wing but the male has the red shoulder-patch bordered with black instead of buff, and the female is blacker with rusty margins.

The **Tricolor Blackbird** (*Agelaius tricolor*; Figs. 5, 6) has the shoulder-patch of the male bordered with white instead of buff or black, and the female is less streaked than in the Red-wing.



Notes from Field and Study

Migrants in New York City

On May 15, 1921, Madison Square, a small park in the very heart of Manhattan, was the scene of an astonishing migratory bird exhibit. Bewildered in the thick weather of the preceding night, large numbers of small birds had dropped into this haven of refuge and through the kindness of Mr. George Gladden, of the New York Linnæan Society, who telephoned me of this remarkable event, I was able to make a rough census on two successive days, and to investigate the cause of such an unusual happening.

Arriving about 1 P.M., I was surprised to find the birds swarming over the lawns, but relatively few of them up in the trees. It was a novel sight to watch Redstarts and a Chestnut-sided Warbler flitting about on the close-cropped sod, and the birds seemed so ravenously hungry that even Maryland Yellowthroats were to be seen pecking at the pieces of bread thrown in by passers-by. Grasshopper Sparrows appeared more at home, as they crouched low in the short grass, where they probably found more natural food.

The total number of birds, on the 15th, I estimated at about 525, exclusive of House Sparrows. Ovenbirds were decidedly in the majority, scattered everywhere through the park, while the next most abundant birds, White-throated Sparrows, were gathered in more or less of a flock in the center of the Square. Twenty-three species of native birds were seen alive, and one more, the Magnolia Warbler, was represented among the birds picked up dead.

By the following day more than three-fourths of the birds had left. Among those remaining, of course, were some that had suffered injuries, but others seemed quite unhurt. Of the larger and stronger species, such as the Catbird, Towhee, and White-throated Sparrow, even a smaller proportion was left.

The species and the estimated numbers of individuals present on these first two days

are as follows, but Ovenbirds and a few others remained for many days thereafter.

	May	
	15	16
Lincoln's Sparrow.....	1	0
Chipping Sparrow.....	8	2
Field Sparrow.....	4	1
White-throated Sparrow.....	100	15
White-crowned Sparrow.....	2	0
Swamp Sparrow.....	4	0
Grasshopper Sparrow.....	8	1
Towhee.....	50	8
Northern Water-Thrush.....	2	2
Ovenbird.....	200	60
Maryland Yellow-throat.....	80	30
Yellow-breasted Chat.....	1	0
Redstart.....	4	2
Chestnut-sided Warbler.....	1	1
Black-throated Blue Warbler.....	2	0
Myrtle Warbler.....	1	0
Parula Warbler.....	2	1
Black-and-white Warbler.....	7	1
House Wren.....	3	0
Brown Thrasher.....	3	0
Catbird.....	35	4
Wilson's Thrush.....	3	0
Gray-cheeked Thrush.....	2	0

Many birds of the species enumerated above were found dead in the vicinity of Madison Square, and the cause of the disaster is not far to seek. The night had been very foggy, and it was against the tower of the Metropolitan Life Building, to the east of the Square, that the birds had hurled themselves. The brilliant electric lights at its apex, and the illuminated clock-dials lower down doubtless played a part. So many of the dead birds had been carried off before my arrival that it was impossible to estimate accurately the number that had succumbed. The superintendent of the Metropolitan Life Building tells me that about one hundred were found on the building, but two or three times that number probably fell in the park and on nearby streets. We noted that few Towhees or Sparrows had been killed; most of the casualties were among the weaker

Warblers.—JAMES P. CHAPIN, *American Museum of Natural History, New York City.*

A Strange Migration

This locality is in eastern Iowa and about 65 miles north of the Missouri line. The weather during the early part of January, 1922, had been what one might call 'fine winter weather.' The temperature had been oscillating between zero and 32 degrees above. Up to the 18th there had been very little snow in January, though earlier in December we had both snow and lower temperature. From the 12th to the 18th of January there had been no snow at all and the ground was bare. On the 18th, at 3 P.M., a very fine snow began to fall. By 9 P.M., the ground was covered by about 2 inches of very fine, light snow. Some of the snow adhered to every limb, branch, and twig of all the trees, bushes, and plants, converting the landscape into fairyland. There was not a breath of air moving. The night was perfectly still, the temperature was 18° above, and the fine snowflakes continued to descend lazily to earth.

At 9 P.M. small voices, as by enchantment, began to be heard at a distance toward the northwest. Presently, they were overhead and in every direction. Judging from the volume and quality of the sound, the travelers must have been a large concourse of small birds. They were moving in a southeasterly direction. For one and one-half hours I heard their voices, many of them. I could hear them as they were approaching, could hear them overhead and for a considerable distance after they were past. The flight of birds was continuous though many more were to be heard at some times than at others. Many thousands of birds must have passed this locality during that time. All the birds seemed to belong to one species. Their note is not unlike that of the Bluebird but higher in pitch and varied occasionally by a little trill. I have heard the same voices here before but always in the air, at night, and during migration time in spring and fall, but never in the middle of winter!

At 10.30 P.M. the wind began to sigh and moan in the tree-tops and the flight of the

birds ceased. Gradually the northwest wind became more boisterous and the temperature fell to 5° below zero during the night. Next day was fair and cold.

Now several questions arise at once in regard to this peculiar and interesting phenomenon. What species of birds were these? Where did they come from? Did they intuitively know or feel the approach of the cold wave or did the storm stir them up and did they gain an hour and a half on the wind by their more rapid flight. If, as would seem, they are migratory birds, how can we account for the fact that they did not move South in December when the temperature went to 7 degrees below zero and the ground was also covered with snow.—E. D. NAUMAN, *Sigourney, Iowa.*

A Removable Floor for Bird-Houses

In the past years that I have used home-made bird houses, I have found that the strongest argument in their disfavor is the difficulty experienced in cleaning them out. A number of house-nesting birds, including the House Wren, which is, perhaps, the most desirable of them all, will rarely occupy a house a second time if the owner fails to clean it out; but cleaning the house out often means a great deal of labor. Usually, a tree must be climbed, the house torn from it, and after the ground is reached, it is often necessary to tear a side from the house to get at the contents. Such means will usually permanently disfigure the bird-house and the person has the choice of building a new one or replacing the old in its battered condition.

In an effort to remedy this fault, a number of good ideas have been put into practice, and while most of them will serve their purpose well, they frequently do not combine simplicity in construction with strength, and the results are disappointing. I have used a good many types of bird-houses and have tried the various schemes for cleaning them with more or less success, but I have found that they do not quite answer the requirements, and I was therefore prompted to devise a removable floor, which is a little different from any plan I have yet seen, and

have successfully used it on my more recent houses.

The removable floor can be used on any single-story bird-house regardless of the number of rooms, but it is more practical for the one-room type. The house is constructed in the same manner as any bird-house, save that no floor is built into it, and about one-half inch from the bottom four holes, two on each side and directly opposite each other, are bored; these are to receive light wire which is run through them and cut off, leaving an inch or two protruding on each

save much unnecessary trouble.—FRED J. PIERCE, *Winthrop, Iowa.*

The Herring Gulls

One afternoon in April, when the sunshine was warm and the great out-of-doors was inviting, a trip was made to the lake shore to photograph the Gulls. They were there as usual; some were sitting on the ground like sentinels; others in smaller groups were overhauling the refuse of the city's waste; others again, were flying and sending out



HERRING GULLS

Photographed by Thos. A. Taper

side of the house. The floor, which is made to fit snugly, but not tightly inside the bottom, rests on these two wires, and when they are bent over on the outside, the floor is held strongly in place. Two cleats, nailed above the floor on the inside, will hold it in place from above, but this is hardly necessary.

It will be readily seen, that, by simply bending the wires straight and pulling them out of their holes, the floor will drop out and with it the contents of the box. This can be easily accomplished without the trouble of removing the house from the tree, and as a pair of pliers is the only tool required, I believe that the adoption of this plan would

their cries through the clear cool air; the remaining ones were farther away, near a break in the ice in the lake.

I first attempted to get a picture by approaching quietly, but this resulted only in a general rise of assembly and an alighting some feet distant.

The next afternoon, the same place was visited, and the Gulls were there as usual. The camera was set near a brush-fire, which was dying out. Some pieces of bread were thrown a few feet away from it, and the Gulls soon came from all directions. The first arrivals settled down near the smoldering embers of a discarded Christmas tree; others

dropped very cautiously over the pieces of bread; and those that were on the other side of the lake started on their journey to a bountiful repast. Thus the birds got their food, and I got my pictures.—THOMAS A. TAPER, *Negaunee, Mich.*

A Winter Sapsucker

Since January 3, 1922, the Yellow-bellied Sapsucker, shown in the accompanying photograph, has been an almost daily visitor

pool. Suddenly a bass jumped from the water and swallowed the Hummingbird!"—MARY E. LOCKWOOD, *Lakewood, N. J.*

A Winter Phœbe at Bennington, Vt.

On February 1, 1922, I was sitting on a box by our barn, when I heard the familiar note of the Phœbe, and, upon looking upward, saw him dash from the roof and catch a fly which had been enticed to come out of his winter hiding-place by the warm sun. Then the



A WINTER SAPSUCKER
Photographed by Florence M. Fraser

at our window bird-table, where he partakes of hemp seed. He seems to be an object of curiosity to our other bird guests who are just getting up enough courage to eat behind his back.—FLORENCE M. FRASER, *Morris-town, N. J.*, Feb. 19, 1922.

Hummingbird and Bass

A letter from a member of my family, from Santa Barbara, Calif., dated November 16, 1921, contains a sentence which seems worthy of record in BIRD-LORE. It reads: "We were seated by the lotus-pool when a Hummingbird flew and hovered over the

Phœbe sat on a twig about twenty feet away from me and vigorously switched his tail. In a few minutes he flew away and I did not see him any more. I was very much surprised at his early appearance, as Phœbes do not usually arrive in this locality before March. There is no question of his identity, as I saw him very plainly. The thermometer stood at 48 degrees at the time.—(MISS) CAROL JONES, *Bennington, Vt.*

The Starling in Tennessee

It may be of interest to know that the Starling has reached our vicinity. I ob-

served the first seen here on December 12, near Bluff City, Tenn. They were in company with Meadowlarks, feeding in the open fields.—BRUCE P. TYLER, *Johnson City, Tenn.*, Dec. 13, 1921.

The Starling in Louisiana

I was rather surprised recently by coming upon a flock of Starlings (*Sturnus vulgaris*) at a point on the Mississippi River about twenty-five miles above Baton Rouge.

As proof of my competence to identify the European Starling I might state that I have observed and studied them at West Englewood, N. J., where there are numbers of them. Furthermore, only four or five months have elapsed since I was at home (Morris Plains, N. J.), where the Starlings are quite a nuisance. I am certain that I have not mistaken any other bird for the Starling, for I am very well acquainted with all the members of the family Icteridæ, with which this bird might be confused. During the several years that I have spent along the Mississippi River in Mississippi, Louisiana, and Arkansas, I had not noted the bird before, and, in fact, could be positive in stating that it has not been in my locality, for the nature of my work (civil engineering) gives me excellent opportunities to observe. The particular location where this flock stays (I saw it regularly all the time I was in the vicinity) is at Grand Bay (post office, Hermitage, La., railway station Glynn, La.) on the Mississippi River; and still more specifically I might state that it remained in a piece of pastureland that lay between the levee and the bank of the river.

A theory that presents itself to me and which will account for the presence of the birds is the following: I have noted before and in localities where there are numbers of Starlings, that they sometimes associate rather closely with Red-winged Blackbirds. In view of this I think it possible that several Starlings might become separated from their own kind, due to the indiscriminate associating that I mention, and in their wanderings stray outside the usual geographical range of the Starlings, and then, in accordance with their flocking instinct, remain with the Blackbirds and follow them on down South.

The birds I noted had all of the usual characteristics of Starlings such as the peculiar soldier-like evolutions which they perform when on the wing, the whistled notes (including the note which you consider as resembling that of the Wood Pewee—which it does), and it is also fairly hard to approach.—WALTER C. CAREY, *Baton Rouge, La.*, Dec. 16, 1921.

A Michigan Winter Red-wing

The Red-winged Blackbird is common but not an abundant bird in this vicinity. It nests in June and July and leaves its nesting-grounds about the middle of August. After that it is found in flocks, which leave for the South in September.

On November 21, 1921, a male bird in winter plumage came into my feeding-station and has been around daily since. He seems to be very much at home and acts as though he intended to stay for the winter. As Sault Ste. Marie is in latitude 46° 30' north, the latitude of northern Maine and almost the latitude of Quebec, Canada, this may be a northern record for the wintering of a Red-wing.—M. J. MAGEE, *Sault Ste. Marie, Mich.*, Dec. 9, 1921.

The Evening Grosbeak in Michigan

In the various bird books I have looked over, the Evening Grosbeak is given as a western bird, which occurs irregularly east of the Mississippi River in winter. This I do not believe is strictly correct, at least for the upper peninsula of Michigan, and for the following reasons:

The Evening Grosbeak was made known from Sault Ste. Marie, Mich., by Schoolcraft in 1823. That shows that these birds were in the upper peninsula of Michigan at that early date.

I came to Sault Ste. Marie in 1888 and saw my first Evening Grosbeak in the winter of 1889-90. I found the bird was quite well known to a number of people and was seen here frequently in winter. Up to the winter of 1915-16, never over two consecutive winters went by without my seeing some of these birds.

The winter of 1915-16 I started putting

out sunflower seed, and not a winter since then has gone by without some Evening Grosbeaks being at my feeding-station. They come from the middle of October to early November, except one year, when they were here only in February, and stayed until the end of May, the flock varying from thirty to seventy.

It seems to me the above indicates that they are more than an 'irregular winter visitor.'

As Sault Ste. Marie has the honor of being the location from which the Evening Grosbeak was first made known to science, it can now claim to be one of the first places to report the presence of these birds east of the Mississippi River in summer and undoubtedly nesting.

Dr. K. Christofferson, my partner in bird-work, visited Munising Junction, about 115 miles west of Sault Ste. Marie, on May 23, 1920, and found Evening Grosbeaks there. He again visited the Junction September 6 and 7, October 3, 24, and 25, 1920, and found the birds present. The station agent told him they had been there all summer. The Doctor arranged with the agent to keep track of the birds. June 1, 1921, he again saw the birds at the Junction and the agent reported they had been there all winter. When he visited the Junction, on October 28, 1921, the Grosbeaks were there as before and the agent reported they had been around all summer.

In June, 1921, we heard that a flock of Evening Grosbeaks was at Hulbert, about forty miles west of Sault Ste. Marie. July 17, we spent an hour and a half at Hulbert, between trains. We did not see any of the Grosbeaks but several people reported to us that they had been feeding along the railroad at the station that morning, had been there all summer and the previous winter. Up to the middle of August the birds were reported still there.

August 24, Evening Grosbeaks came to my feeding-station and have been here every day since then, the flock numbering about thirty.

Heretofore (the Grosbeaks coming in from the middle of October to early in November), I have found nothing but full-plumaged

males and females. This year there were a number of young, two very immature, hardly able to fly and still having some pin-feathers. One young male showed only the black and white on the wings and the yellow forehead and stripe over eye of the male, the remainder of the plumage being as in the female. Three young males showed very little of the dusky olive above, and the throat and breast were uniformly a light bright yellow which, in a perfect light, showed a few faint vertical dusky streaks.

The females varied from birds showing practically no dark lines at the sides of throat to the usual dark lines of the adult female. Four of the birds showing little, if any, dark lines at the sides of throat, had most of the usual white spots on the wings, but only the lower third to half of the primaries black, with no black whatever on the secondaries.

All the birds now seem to be in adult plumage, although some males show more dusky olive above and below than others, and the females vary almost individually in the size and shape of their white wing-markings.

I examined practically all the birds while they were feeding from a tray at my dining-room window, with only the glass between. If these birds follow the usual custom they will be here until the last of May. Late in the winter or early spring I hope to place bands on them all.—M. J. MAGEE, *Sault Ste. Marie, Mich.*, Dec. 9, 1921.

Redpoll in Georgia

On yesterday, February 5, 1922, I added the Redpoll (*Acanthis linaria linaria*) to my list of Georgia birds. There was a small flock of these birds in my back yard on the outskirts of the city, and I had the opportunity of observing two of them at close range. I presume that the extreme cold weather in the north for the last few weeks drove them this far south.—EARLE R. GREENE, 108 *Orme Circle, Atlanta, Ga.*

An Ontario Mockingbird

The most interesting ornithological occurrence observed by bird students of this region in many years was a recent visit from

a Mockingbird. It was first seen on the morning of October 20, 1921, and stayed near our house all day. Although it was not particularly tame, it came close to windows, through which it was often watched for long periods of time, with binoculars, at less than twenty feet. Thus, though none of those who saw it had had personal experience with the Mocker before, it was possible to make an absolutely positive identification.

Many other people saw it and were able to confirm the identification. Seemingly it had been attracted to our ground by the pears which had fallen from a tree in the garden, for it apparently ate little else.

It was back again on the 22d, and 23d and then was not seen again till November 12, when the temperature was below freezing, but the bird seemed in high spirits. It made its last appearance on November 20.

Unfortunately, during the entire period it was here it was quiet and did not sing.—M. G. GOULD, *Bowmanville, Ont.*

A Striking Example of a Bird's Power of Accommodation to its Surroundings and Consequent Modification of Habits

One hundred years ago the Wood Thrush was considered a shy woodland bird. Fifty years ago Dr. J. A. Allen referred to several instances "where the Wood Thrush did not show itself to be such a recluse as many describe it." Twenty-five years ago the species had become a common denizen of our parks and suburban gardens, often making its home within a few yards of occupied houses. At that time a pair had its nest for several years in an European maple (*Acer platanoides*) at the entrance to the arboretum in Shaw's Garden, St. Louis, Mo., where scores of people passed under it every day. But now, in the summer of 1921, a pair built its nest in the interior of the new conservatory in Shaw's Garden and reared three young ones undisturbed by the thousands who visited the conservatory and passed within a few feet under the nest. This is fixed twelve feet from the ground in the triple fork of a Polynesian candleberry tree (*Alseis blackiana*), in the section of the conservatory called "Economic House," which harbors

an interesting collection of exotic plants of economic value, such as tea, coffee, cocoa, guava, mango, pepper, and others yielding food, drugs, fiber, perfume, spice, or valuable wood. A bearing coffee tree is one of the neighbors of the tree that holds the nest; others are a loquat or Japanese plum tree (*Eriobotrya japonica*) and the golden apple of Jamaica (*Spondias lutea*). Access at all times was obtained by the birds through ventilators kept open in summer.—O. WIDMANN.

A One-legged Cardinal

Last summer a Cardinal and his mate built a nest just outside one of our dining-room windows. The mother laid five eggs but only four hatched. One afternoon while I was watching them, the father flew up with his mouth full of food. The female promptly opened her mouth, and I was surprised to see him give her part of the food. He gave the remainder to the young.

I watched them very closely after this occurrence and finally discovered that the mother had but one leg. I have never before heard of the male having to care for his mate and the young, too.

After I learned of the mother's plight, I put out crumbs so that the male would not have to search so far for food, and he promptly acknowledged my kindness by using the crumbs.

In placing the crumbs, I unintentionally moved a small branch that the birds had been using to alight upon when entering their nest. This seemed to utterly confuse them, for when they returned it seemed as if they would never be able to find their nest. The branch was replaced and the birds then found their home without any trouble. I have heard that the moving of a nesting-box, on the branch on which a nest was built, was confusing to the bird tenants, but did not know that the mere moving of a little branch would so affect them.

The birds finally took flight, and I have seen them several times since. About three days after the flight of the young, the Cardinals started another nest, but only two young ones flew from the second nest.—M. H. HERBEL, *Citronelle, Ala.*

THE SEASON

XXX. December 15, 1921 to February 15, 1922

BOSTON REGION.—The winter has thus far been mild in the main, and, in the country immediately about Boston, comparatively open, although to the north of us there has been an abundant snowfall and now, on the last day of the present period, snow is falling to a depth of eight inches.

The promise of a visitation of many of the irregular winter birds was not fulfilled; a few Grosbeaks have been here, both the Evening and the Pine, but only in scattered and roving flocks, and the Redpolls when seen at all have been in very small numbers. Northern Shrikes, to be sure, have remained well represented; Golden-crowned Kinglets, usually rare after January 1, have been present all winter; and Brown Creepers, Juncos, and Tree Sparrows are not uncommon, but with these exceptions no land-birds, excepting the permanent resident species, have been seen. That even these birds are to be found only in small numbers is well instanced by the Christmas census from Wilton, N. H., in which Mr. George G. Blanchard, an observer of ample experience, records but a single native species seen during a three hours' walk.

The violent storms which have swept past us over the North Atlantic this winter have apparently driven landward many of the winter sea-birds. In his 'Items of Interest' X., February 1, Mr. E. H. Forbush reports the record of a Puffin found in a garage at Duxbury Bay, a Brünnich's Murre "at a pond near Boston, and another . . . walking about in a hen-yard on Cape Cod." I am indebted to Mr. Charles B. Floyd for information of a noteworthy and unusual distribution of sea-birds. He reports Doves "positively common," several hundred being in sight at one time off shore. The Purple Sandpiper, a bird which in winter frequents outlying ledges and the rocky shores of our small islands, Mr. Floyd has noted "a number of times" visiting the mainland—a rare occurrence. He has seen Brünnich's Murres, Black Guillemots, and Razor-billed Auks frequently, and names

three localities (the most central, the Fish Pier, Boston) where Iceland Gulls may be seen "almost any day."

At this season of the year, when the Starlings are gathered into flocks, we can form a better idea of the number of these birds inhabiting a region than during the summer when they are scattered over the country. Here, in the rural districts, attracted by the great truck-loads of garbage brought out from Boston, the birds collect at extensive piggeries. In one such midwinter gathering we estimated that 2000 to 3000 birds were feeding upon garbage which had been spread out for fertilizer, and less than three miles away there was another flock nearly as large. These estimates give some idea of the number of Starlings with which the hole-nesting birds of this region have to compete.—WINSOR M. TYLER, *Lexington, Mass.*

NEW YORK REGION.—There was some cold weather, some snow, from New Year's to mid-February, but in the main the winter was an open one. It was remarkable in most sections near New York for the scarcity of passerine birds. A Snowy Owl was reported again (see Christmas Census) at Long Beach, L. I. (Bicknell), and another on several occasions on the marshes at Elizabeth, N. J. (C. A. Urner). A Razor-billed Auk which had come ashore, oil-marked and disabled, at Long Beach was secured by E. P. Bicknell and sent to the American Museum of Natural History. A single Evening Grosbeak was reported at Garden City, L. I., by Roger C. Whitman, December 29. As an excellent view of the bird was obtained and identification corroborated by examination of a mounted specimen, there seems little chance of error here. There was certainly no general invasion of irregular northern species during midwinter.

Presence of stray Grackles at the end of January proves that this bird wintered in small numbers. One is reported in Central Park, New York City, by Tertius Van Dyke, January 26. W. F. Hendrickson writes from

Jamaica, L. I.: "On January 29, during the height of the blizzard, a Purple Grackle appeared in my garden. When I first saw him (it was a male) he was perched on the rounded top of a clothes-post, trying to balance against the gale of wind and snow, but they were too much for him and he flew into a big rose bush, where he, with a couple of dozen English Sparrows, had a garage wall to shelter them from the storm. I hoped he would stay there to be fed, but something frightened him and he flew away into the storm. He looked thin and tired, as though he had been having a hard time of it lately. This is the first time I have ever seen this species on Long Island in the middle of winter.

"Another interesting item is that a male (he sings) Mockingbird has been wintering in the barren, bleak district south of Queens Boulevard, near the Packard automobile building. He has been seen a number of times, sometimes sings, and seems to be in good shape."

The Catbird in the Botanical Gardens, December 18, apparently met with an untimely end, for a dozen or so Catbird feathers were found, December 25, scattered a few feet away, and two tail-feathers sent in by F. F. Houghton.

In late January and early February, Shrikes were apparently less common, for the writer saw none, and there seemed to be a slight influx of Tree Sparrows, doubtless from the north. As, with the exception of two stragglers on January 2, the writer has seen no Meadowlarks since December on west-central Long Island; their song has not welcomed the mounting February sun at Garden City, as in years gone by. Reference to the corresponding report last year will show that this species returned in mid-January. Perhaps an exceptionally heavy snow-storm which followed in late February last year has discouraged them from repeating an early return.

On the marshes at Elizabeth, N. J., Urner reports an apparent spring movement in Meadowlarks and Ducks the first half of February. With the increased numbers of Black Ducks he observed individuals of the Mallard and Pintail.

A 'winter' Song Sparrow, banded at Upper Montclair, N. J., by R. H. Howland (No. 44699, see October-December report), returned to his traps February 4 this year after being last taken December 23. In 1921 the same individual likewise returned February 4 after having last been taken December 5 preceding. Such midwinter absence of this bird from his traps which might easily have been due to chance one year, becomes significant when occurring a second time. On January 17, B. S. Bowdish trapped three Tree Sparrows at Demarest, N. J., one of which he had banded (No. 49269) nearly or quite a mile away two years previous, February 23, 1920.—J. T. NICHOLS, *New York City*.

PHILADELPHIA REGION.—The period under consideration has been marked with a number of quite cold days and much stormy weather. The blizzard of January 28 and 29 resulted in about eight inches of snow which drifted in places to the depth of six feet or more. A few days later the ground was for the most part bare, the snow having been quickly melted by a sudden rise in temperature accompanied by a warm rain. It seems therefore quite probable that comparatively little damage was done to bird-life through lack of food. However, numbers of Black Ducks were reported to have been picked up along the Jersey coast in an exhausted and helpless condition immediately following the storm.

Probably the most interesting record of the winter is that of a Golden Eagle which was shot by a deer hunter near Browns Mills, N. J., about mid-December. The bird was brought into Mt. Holly, N. J., and identified by Mr. Nelson D. W. Pumyea to whom credit is due for the record. The gunner claimed that the Eagle was about to attack him and he had to shoot in self-defense. That he made up the story in self-defense would no doubt be much nearer the truth.

The Cardinal population this winter appears somewhat above normal. On January 15 a flock of 20 of these birds and 2 Purple Finches were seen feeding on the seeds of the tulip poplar at National Park, Gloucester County, N. J.

A flock of 50 Red-backed Sandpipers were seen at Corson's Inlet on February 5. Since a flock of about the same size was observed here early in December (see last report), it would indicate that the birds were wintering. A small group of Sanderlings accompanied this flock of Sandpipers.

Other records of interest are: Ipswich Sparrow and 4 Snow Buntings, Cape May, N. J., December 18; Northern Shrike, Mt. Holly, N. J., January 8, and Winslow Junction, N. J., February 5; Saw-whet Owl, National Park, N. J., January 15; 6 Great Black-backed Gull, Seaside Park, N. J., January 22, and 6 at Corson's Inlet, N. J., February 5; Mallard drake, 1.

Robins, which were absent for the most part during December, began to appear at numerous points by the middle of January (7 at National Park, January 15) and since have been quite common.—JULIAN K. POTTER, *Camden, N. J.*

WASHINGTON REGION.—A winter of about normal weather drew almost no unusual northern birds to the region about Washington during December, 1921, and January, 1922. Notwithstanding this, some of the ornithological happenings may be worthy of mention.

The Herring Gull has been as common as ever along the Potomac River, and the Ring-billed Gull, although not so numerous, has also been present. The Bonaparte's Gull, which is of rare occurrence after December 1, was several times noted on the Potomac River during December; and also, by J. Kittredge, Jr., on January 1, about the Tidal Basin at Washington. The Pied-billed Grebe, for which there is no previous certain winter record, was reported by E. A. Preble from the mouth of Little Hunting Creek, Va., on December 24.

Ducks to the number of several thousand frequented the Potomac River below Washington, the Greater and Lesser Scaup Ducks forming the bulk of the flocks. In addition to these the following other species have been reported: American Merganser, Hooded Merganser, Mallard, Black Duck, Canvasback, American Golden-eye, and Ruddy Duck. In addition, the Old Squaw, White-winged

Scoter, and Surf Scoter were noted on Chesapeake Bay, near Fairhaven, Md., by Mr. Kittredge. On December 12, a flock of 7 Mallards was seen flying at a considerable height over the northern part of the city of Washington. This recalls the fact that wild Ducks, apparently attracted by their own kind, and, presumably to feed and rest, occasionally drop down for a time into the pond in the Zoölogical Park, where various species of North American Ducks and Geese, pinioned but not confined, dwell together as a happy family.

The Red-winged Blackbird, which is rare during winter in the vicinity of Washington, was seen by L. D. Miner, on December 17, at Dyke, Va., and on January 2 near Arlington, Va. The Golden-crowned Kinglet is relatively common this winter for the first time in several years. The European Starling is becoming one of our common birds, and is more numerous this winter than ever before, roosting, in considerable flocks in places about buildings within the limits of the city of Washington.

Mr. T. Denmead reports an unusual gathering of Robins near the mouth of South River, in Anne Arundel County, Md., where he saw birds to the number of 500 or more on January 21 and 22, scattered over a number of fields, feeding on the ground and eating the berries of the holly trees in the vicinity. The birds were said by the residents to have arrived on January 20. While a few Robins ordinarily winter in this region, the great bulk of the species moves farther south, and such a large number in any one place during January is notable.

What appear to be rather remarkably early records for the singing of birds were obtained during January. The White-throated Sparrow was heard singing on January 14, the Song Sparrow on January 23 and 30, the Junco on January 30, and the Cardinal on January 21, 28, and 29. It is rather interesting to note that none of these days was much warmer than the days preceding or following. Furthermore, a pair of Cardinals was observed mating on January 14.

Of considerable interest was the behavior of birds in the outskirts of Washington during

the heavy snowstorm that brought twenty-six inches of snow between the evening of January 27 and the evening of January 28. Previous to this time birds had been very scarce about the writer's home, but on the 28th, ten species and a considerable number of individuals appeared about the house and remained more or less all day. On January 29, which was cloudy with occasional snowsqualls, the birds were still more numerous, and during the two following days, which were fair, they continued common. During these four days (January 28 to 31) the following species were observed: Turkey Buzzard, American Crow, Fish Crow, Blue Jay, European Starling, English Sparrow, White-throated Sparrow, Song Sparrow, Slate-colored Junco, Cardinal, Tufted Titmouse, Carolina Chickadee, White-breasted Nuthatch, Mockingbird, and Bluebird. The heavy blanket of snow over all the country had evidently given them some trouble in procuring a livelihood, and they were thus driven to seek food in unusual places. The Juncos were the most familiar as well as most numerous visitors, and came readily to the back yards for crumbs and cornmeal thrown out for their benefit. The Bluebirds flew disconsolately about the yards, but were with difficulty attracted to feeding-stations. Since relatively warm weather succeeded the storm, and the snow rapidly melted, soon leaving spaces of bare ground, the birds gradually withdrew from the outskirts of the city, and doubtless no serious loss of life occurred among these bird visitors.—HARRY C. OBERHOLSER, *Biological Survey, Washington, D. C.*

CHICAGO REGION.—The winter in this region has been very mild, as it was last year; no heavy snows and only a few days of real cold weather. A number of species have found food enough for them to stay here instead of going south. A few visitors have come in from the north also, which seems to bear out the belief that it is more the food-supply than the temperature that controls the movements of winter birds.

The large crop of acorns has kept the Red-headed Woodpeckers here all winter. Others reported staying here are: Marsh Hawk,

January 8; Red-tailed Hawk, January 15; Sparrow Hawk, January 6, from the Dunes and also from Waukegan, December 23 and 24, where Mr. Lyons found one trying to reach a Junco he had caught in a banding trap; Red-breasted Nuthatch, January 13; and Northern Flicker, January 30, seen by H. K. Coale at Highland Park, Ills. Meadow-larks have been reported from all sides of the city, and as far north as Kenosha, Wis., fifty-two miles north of Chicago. Robin and Brown Creeper were seen December 27 by Dr. C. W. G. Eifrig, at River Forest. W. I. Lyons reports from Waukegan, Winter Wren and Golden-crowned Kinglet, January 2, and a Fox Sparrow that has been around his yard all winter. January 22, the writer found a Song Sparrow at Beach, Ills.

The common winter birds are here as usual. Others reported are: Northern Shrike, January 4, and Rough-legged Hawk, January 9, from River Forest; and Bohemian Waxwings, December 28 (Dr. Eifrig), January 24 and February 4; also Northern Shrike, January 9, at Glencoe (S. A. Harper); Horned Grebe, January 15, and Purple Finch, February 5, at Dune Park, Ind. (Mrs. Cramp).

January 22, the writer saw a Saw-whet Owl which had been shot west of Highland Park, Ills. It was sitting on the ground in some thick hazel brush. A pair of Snow Buntings were seen at Beach, January 2. No Ducks have been reported yet, probably as they stay too far out in the lake for identification. Some were seen by the writer at Beach January 2 and 22, but could not be identified.—COLIN CAMPBELL SANBORN, *Chairman Report Committee, Chicago Ornithological Society.*

MINNESOTA REGION.—The first severe cold of the winter came in late December—10 degrees below zero on the morning of the 23d and 18 below the day before Christmas, at Minneapolis, with 24 below at Moorhead 23 below at Fergus Falls, and 22 below at Duluth, the coldest days since February, 1920. Twice during January there were cold spells of a few days' duration when the thermometer ranged from 10 to 20 degrees below zero at various places in the state.

From the 21st to the 24th inclusive, intense cold and high winds prevailed generally and a heavy fall of snow occurred in the northern part of the state. Snow and blizzards came again on February 1 and 2, with the heaviest fall of snow of the winter up north—15 inches at Duluth. Milder days followed until, on February 11, 13, and 14, morning temperatures at Minneapolis were 6 to 14 below, 28 below at Moorhead on the 14th, 18 below at Duluth, and 8 below at La Crescent in the southeastern corner of the state. So we have had some real winter weather, but the intense cold has never been of long duration. In the southern part of the state there is only a moderate amount of snow on the ground, but in the north woods there is a heavy blanket. Lake Superior is largely open, and many Golden-eyed Ducks, Old Squaws and Herring Gulls are wintering there.

The last article contained a reference to the unusual influx of Magpies this winter. Additional records for the state have been received as follows: Brainerd, 3 (Mrs. Thabes); Le Sueur County, 2 (Warden Olson); Fairmount, 9 (Dr. Luedtke), Crookston, 3 (Dr. Langevin)—17 since the last report, making 51 in all. A number of these birds have been accidentally caught in traps set for fur-bearing animals.

Evening Grosbeaks have continued to be reported from the same and several additional localities; Pine Grosbeaks from Fosston (Miss Torgerson) and Pine County (Warden Greig); Snow Buntings from the Red River Valley (numerous, Dr. Langevin), Lake Washington, Le Sueur County (Warden Olson), and Pine County (Warden Greig); and Bohemian Waxwings from many places chiefly in the southern portion of the state.

Dr. Langevin, of Crookston, writes: "There seem to be more Arctic Owls (Snowy Owls) here than usual. I have had several brought in to me since January 1. It is too bad that everyone seems to want to kill this beautiful bird. I do wish there was some way of stopping this unwarranted practice." This Owl has also been reported from Pine County (Greig) and Hutchinson (Eheim).

But few Goshawks have been reported, and only one or two additional Butcherbirds. Redpolls continue abundant.

Professor Hornbeck of Carlton College, Northfield, reports that Red-breasted Nuthatches remained there until late in December. Golden-crowned Kinglets were at Owatonna until Christmas time (Jager). Under date of January 21, Dr. Luedtke, of Fairmount, writes: "Brown Creepers are safely wintering so far. Temperature has been to 14 degrees below only once this winter. The Meadowlarks and Robins that were here in December have not been seen this month. Thus far the winter may be considered mild with only a little snow." Fairmount is in Martin County, not far north of the Iowa line.

Wintering Robins have been reported from several places: Hutchinson, December 25, (Eheim); Red Wing (Densmore); Anoka (Gillis, who writes under date of January 20: "A Robin has come to be fed all winter at a residence in the town, and a Red-headed Woodpecker has been seen about a poultry yard up to and including yesterday"). A rather surprising record is of two Robins away up at Duluth on December 26 (J. E. Kraeger).

Miss Densmore reports 4 or 5 Red-winged Blackbirds wintering at Red Wing and they have been seen elsewhere also.

A flock of Mallard Ducks was seen at South Heron Lake on January 28 by Warden C. D. Gibbs. The Mallard will often remain in the southern part of the state wherever there is open water on which they can rest at night and nearby corn-fields where they can feed in the daytime.

Mr. Alfred Peterson, of Pipestone, Pipestone County, in the southwestern corner of the state, wrote as follows under date of December 21: "Was out on the 18th and there were plenty of birds to be seen as this list, named in the order of observed abundance, will show: Many Crows, nearly 200 Horned Larks, about 150 Prairie Chickens, 20 Short-eared Owls, 12 Tree Sparrows, 7 Redpolls, 5 or 6 Lapland Longspurs, 1 male Marsh Hawk, 1 Chickadee, and 1 Snowy Owl." Mr. Peterson has previously indicated the exceptional abundance of the Short-eared Owl in that locality—far out in the prairie portion of the state. In a subsequent letter the same writer reported a Wilson's Snipe seen on January 8 in a spring-hole near

the town. This is not a very unusual occurrence in the southern half of the state.—
 THOMAS S. ROBERTS, *Director Zoölogical Museum, University of Minnesota, Minneapolis, Minn.*

KANSAS CITY REGION.—A most interesting local Christmas Census including 41 species was made this year by seven observers but was compiled too late for inclusion in the February number of BIRD-LORE. Among the species of unusual occurrence at this season were 10 Mergansers, 26 Mallards, 1 Wilson's Snipe, 50 Doves (feeding on soy beans!), 1 Belted Kingfisher, 3 Yellow-bellied Sapsuckers, 2 Red-headed Woodpeckers, and 15 Red-breasted Nuthatches. A few common winter species were not listed, and only one small troop of Harris's Sparrows and a single Fox Sparrow were noted. Meadowlarks and Towhees, often missing from Christmas lists in the Kansas City area, were rather common, and Blue Jays were abundant. Owing to the scarcity of poison ivy fruit this winter, no Myrtle Warblers have been found, and but 4 Robins had been seen up to February 5. The Mergansers listed have spent the entire winter in a stretch of the Missouri River in sight of William Andrews' cabin. Two large Gulls and several Pintails were also under observation from this station during the holiday season.

Wintering Hawks of three species became common on the prairies and uplands of the county about the time of the severe cold of mid-January. Short-eared Owls also became numerous at this time, at least 50 being seen daily during late January and early February in the southern outskirts of the city, especially on the high ground between Waldo and Swope Park. Competition has been keen, as the birds include back yards and school grounds in their hunting ranges, and may be seen sailing about during all the hours of daylight in quest of their rodent prey.

A flock of 10 or 12 Meadowlarks weathered the January storms and could be heard singing their ventriloquous songs any day in the neighborhood of 63d Street and Wornall Road. At least one covey of Bob-whites has wintered safely in the Country Club District,

and another in the Forest Hill region. These birds are protected at all seasons chiefly by a wholesome public sentiment. Their nests are found during the breeding-season in most unusual places in the southern precincts of the residence district of Kansas City, and the species seems actually on the increase in this fast-growing community.

A few Golden-crowned Kinglets have wintered in the Fairmount Park neighborhood where a small flock of Bronzed Grackles have also been seen at intervals during January and February.

Bluebirds, Robins, and Purple Finches were noted in the Dodson and Indian Creek region on February 5, and on February 9 and 10 dozens of Western Meadowlarks were heard piping on the Waldo prairies. A few of the eastern form were mixed in with the western birds but were not so confident in their song.

It is good to be able to offer authentic data on the southern extent of the Magpie invasion in the Missouri valley. These birds have reached the southwestern corner of Nebraska and have crossed over into Missouri. Charles E. Dankers, of Corning, Mo., writes that 50 individuals of this species have been under observation all winter in his corner of Holt County, and it is hoped that observers further down the river may yet record Magpies in Missouri.—HARRY HARRIS, *Kansas City, Mo.*

PORTLAND, (OREGON) REGION.—The winter season in the Portland region has been marked by long-continued cold weather of unusual severity, and this has had a marked effect on the abundance of birds. Just before Thanksgiving, the Columbia Gorge district, including the eastern edge of the city of Portland, was ice-bound by a severe ice-storm which turned to rain in other parts of the region. All the trees of the Columbia River bottoms were twisted and torn by the weight of the ice and most of the larger trees were stripped of their branches. This district was visited on Christmas day and again on January 8. Gairdner's Woodpeckers, Oregon Juncos, Willow Goldfinches, Oregon Chickadees, Western Golden-crowned Kinglets, Seattle Wrens, Rusty Song Spar-

rows, Oregon Towhees, and a single Ruby-crowned Kinglet—all together in a large flock of several hundred birds feeding in the debris caused by the storm. This association of practically all the birds in this locality in one flock, all feeding on the ground on the broken branches, has endured for nearly two months.

The Audubon Warbler, usually a fairly common winter resident, has been very scarce, although farther south around Corvallis they were found in numbers on December 30. A dead one was picked up in Sellwood on January 1 and brought to Stanley G. Jewett.

On January 19, while crossing one of the Willamette bridges, a Glaucous Gull flew past at close range. There are several records of this bird for Portland, though this is the first for this winter. Glaucous-winged, Western and Short-billed Gulls are as abundant as usual on the river and a few Californias have been noted at various times. The Short-billed Gulls spend much time in the various parks and in the suburban districts, foraging like a flock of Crows.

Crows have been unusually abundant, the several small roosts in the vicinity of Portland all having a much larger population than during the last two years. Such winter birds as the Evening Grosbeak, Varied Thrush, and Fox Sparrows of several subspecies have not been as conspicuous nor as abundant as usual in spite of the severe winter.

The first evidences of spring migration were noted on January 22 when several flocks of Geese were seen, and on January 23 large numbers of Western Meadowlarks and Northwestern Flickers appeared in districts where only a few have been present up to this time. Renewed cold stopped the movement, but the birds already here have remained. The Robins arrived in force last year on January 29, but began to appear here in numbers on February 3 this season. Mr. Gale, in the eastern part of the city, reports that Nuttall's and Golden-crowned Sparrows remained all winter about his feeding-station. The former is rather a rare winter resident. W. A. Elliott reports that a Lutescent Warbler came to his home on December 9 and remained for some time.

Mrs. W. P. Jones reported a strange bird to members of the Audubon Society and later Miss Mary Raker visited the place and identified the bird as the Chinese Starling (*Acridotheres cristatellus*), a bird with which she was familiar from observations made at Vancouver, B. C., where there is quite a colony of these birds. The writer has visited the locality twice (on February 5 and 6) and carefully watched this bird, and agrees with Miss Raker in her identification. Probably this bird is either an escaped cage-bird or a wanderer from the British Columbia colony. It is quite shy, although it frequently visits the feeding-station. Mrs. Jones states that it has been coming to her feeding-station quite regularly since before Thanksgiving. Realizing the necessity for care in basing first records on sight identifications, the writer hesitates to record this bird formally. However, there does not seem to be any chance for mistaken identity of this curiously crested bird. While this is its first known appearance in Portland, there is no reason why it should not eventually spread over the Northwest from the established colony in British Columbia.—IRA N. GABRIELSON, *Portland, Ore.*

SAN FRANCISCO REGION.—Winter weather culminated in a real freeze on January 19 and a real snowstorm on January 29. The effect of the cold upon the birds was more marked than that of the snow. A temperature of 23 degrees made the Thrasher keep one foot tucked up under his feathers while he warmed the 'inner bird' with suet and bread crumbs. The White-throated Sparrow, on the other hand, hopped about on the frozen drinking-fountain, scratching about quite unconcernedly among the fallen leaves. If he came this way to avoid the cold, he wasted no time grumbling over his disappointment, but showed himself quite equal to the challenge of an unexpected environment. When, on the 29th, the falling snow buried the food provided, the Thrasher gave up trying to dig it out with his beak, but the Fox Sparrow and the Spurred Towhee kept scratching energetically, even after the snow was four inches deep on the feeding-table. Human interference prevented famine for twenty-four

hours, after which the danger was past. In general, few fatalities were reported.

Chilly weather, with frequent frosts, is still prevalent, but, judging from the number of moths which collect about a protected porch-light, insect food is still available. Thrashers and Vigor's Wrens are singing freely, undaunted by rain or wind, while the Anna Hummers, robbed by frost of the honey of the eucalyptus, have turned to the more hardy acacia and Japanese quince.

Titmice were seen investigating nesting-boxes on February 8, and though they put off the day of decision, their frequent songs indicate an increasing interest in nests and mates. A Short-eared Owl was seen on the Alameda marsh lands on February 5 (Mrs. Kelly), and about 100 Band-tailed Pigeons and many Varied Thrushes were reported near Easton on February 12 (San Francisco Audubon Association). February 13 brought the first spring migrant, the Allen Hummingbird (Mr. Storer). The park at Lake Merritt has a number of bird inhabitants not formerly found in that neighborhood. This is no doubt due to the generous planting of toyon and other shrubs which offer cover and food to a number of species. The berries are eagerly sought now by the Cedarbirds and Robins, but Varied Robins, both here and on the University campus, are rare this year.

A census of the water-birds on Lake Merritt, made by a member of the San Francisco Audubon Association, January 15, estimated a grand total of from 3,200 to 3,600 individuals. Of these, Pintails were most numerous, 650 to 700; Coots, a close second; Baldpates, 500 to 550; Canvasbacks and Ruddies, 450 to 500, each; Lesser Scaup, 250 to 300; and Shovelers, 100 to 125. Golden-eyes, Buffleheads and White-winged Scoters each numbered less than a dozen, and a Red-head and a male European Widgeon were equally distinguished as rare birds. Eared Grebes numbered 60 to 65, and Pied-billed Grebes 12 to 15. On February 12 Mr. Storer reported a decided diminution in these numbers, particularly among the Pin-tailed Ducks.

Mrs. Kelly has visited the Alameda shore about three times a week, making a special effort to observe particularly the effect of storms upon the shore-birds. She reports

that the flocks of Western and Red-backed Sandpipers have numbered about 1,000. One Semipalmated Plover and one Sora Rail were seen early in January, and 2 or 3 Dowitchers appeared about once in two weeks. A dozen Willets were always to be seen, while about 24 Black-bellied Plovers covered the flats only at very low tide. Godwits were always more conspicuous during stormy weather, and on January 4, which was a cold, stormy day following mild days, there were 50 Godwits and about 30 Black-bellied Plovers which seemed to be seeking protection in the estuary.—AMELIA SANBORN ALLEN, *Berkeley, Calif.*

LOS ANGELES REGION.—The period under consideration has been one of frequent storms of a severity experienced ordinarily only about once or twice in a decade. The snow-fall in the mountains has been reported as averaging from one to four feet at the 2,000- to 4,000-foot levels, and much deeper at the higher altitudes. Temperatures many degrees below freezing have prevailed during or following nearly all of the succession of storms. An appeal from a forest ranger in the Sierra Madre Mountains for food for the suffering birds was a new note, perhaps struck for the first time in this region.

A county game warden reports 1,000 Band-tailed Pigeons near the mouth of the San Gabriel Cañon, supposed to be birds that normally winter in the region north of Mount Wilson. Audubon members have seen small numbers of them in the Beverly Hills and in Griffith Park, where also a few Blue-fronted Jays appeared early in February. Cedar Waxwings and Robins swarmed into the Park in immense flocks, making short work of the toyon berries, which had until then been practically untouched. The Waxwings then disappeared but the Robins are still taking the remnants of a supply of pepper berries that would normally have lasted through the season. Waxwings have been common in Whittier since late November, but were not listed elsewhere until late in January. Mountain Bluebirds are frequently seen in open fields, as are also flocks of Pipits and Horned Larks. Pine Siskins have been seen swarming in the cañons, feeding on the

alder catkins. Chickadees have been several times reported from Pasadena and Eagle Rock and Red-breasted Sapsuckers from several different parks. Two of these handsome and not common visitors have evidently selected for their winter home the same long row of pepper trees that are furnishing sustenance to so many Robins, and there they may be seen daily visiting their freshly excavated and liberally flowing source of supply.

The Lewis' Woodpeckers noted early in the season have remained in the vicinity where first observed, and many others were seen in January among the oaks of the Canejo region, where Slender-billed Nuthatches, Robins, California Woodpeckers, and Crows were also numerous. Mountain Bluebirds added a delicate charm to the brilliance of the assemblage. A Kingbird, presumably the Cassin's, has remained on a ranch at Artesia. Say's Phoebe, Western Bluebirds, and Ruby-crowned Kinglets are distributed about as usual. Dusky Warblers have been noted during each month, and Western Gnatcatchers have visited many city gardens. During the fall, their abundance about the brushy margins of fields was many times noticed, but as garden visitors they add a new bird to our lists.

Two Phainopeplas have been noted, one early in January and one February 10, in a different locality; Both were females. A Black-and-White Warbler was collected early in February by a well-known ornithologist. There have been but very few records of this Warbler in the state.

Hermit Thrushes and Fox Sparrows are scarce; Gambel's and Golden-crowns abundant; and a large flock of the handsome Western Lark Sparrows is usually to be found in the vicinity of Eagle Rock. California

Purple Finches in small numbers are often seen among the oaks of foothill cañons.

Sharp-shinned Hawks are numerous and bold, and have not been slow to discover the gardens in which the presence of birds is encouraged, their depredations occurring frequently at our very doors. California Gulls make regular daily rounds of the school yards throughout the city and also extend their foraging excursion far inland, many of them following the plow.

Loons, Western and Horned Grebes are common on the ocean, and the beautiful Bonaparte's Gulls are wintering in large numbers. Two Caspian Terns were seen near San Pedro on January 15. The Egrets of the inner harbor are suffering from oil in their plumage, as are also many Gulls. The bird-life of these shallow waters and mudflats has presented an interesting study. At the opening of the hunting season many Marbled Godwits and Black-bellied Plover were there, with a few Willets, Long-billed Dowitchers, 13 Avocets, and 15 Egrets, besides many Sanderling and small Sandpipers. On December 18, began a record rainstorm, which continued a week, resulting in floods and the filling of every slough and swale in the region. The abundance of fresh water, so long lacking, did not tempt the Avocets out, for January 9 the full quota of Avocets were there. January 30, two weeks after the close of the shooting season, they were gone. The date of their departure is not known, no visit having been made to the place during the period intervening between the dates mentioned. Ten of the Egrets had moved to the marshes near Anaheim Landing on January 28. At this date the lagoons were filled with Ducks, Pintails being noted as very numerous.—FRANCES B. SCHNEIDER, *Los Angeles, Calif.*

Book News and Reviews

FIRST ANNUAL REPORT OF THE DIVISION OF ORNITHOLOGY OF THE COMMONWEALTH OF MASSACHUSETTS, By EDWARD HOWE FORBUSH. Reprinted from the annual report of the Department of Agriculture for the year ending November 30, 1920. 8vo, 47 pages, 4 plates.

It is, we believe, demonstrable that the widespread interest in birds which exists in Massachusetts is due to the services of the state's Director of its Division of Ornithology no less than to the natural inclination of its inhabitants. For many years, during which Mr. Forbush has represented organized ornithology in Massachusetts, he has exerted not only a potent influence in behalf of birds but also in behalf of bird students, who have found in him and his publications a guide and instructor.

We learn from the present publication that nine pamphlets were issued by the Division during the year. They deal with such practical subjects as feeding appliances, outdoor bird-study, Arbor and Bird Day, bird-houses, and the like. Some were new, others reprints or revised editions, and their titles show that character of the stream of information which has been flowing steadily from Mr. Forbush's active pen.

His 'Report,' which constitutes in effect the thirteenth in the series, includes a general statement of the status of international bird protection, and the results of researches on the food habits of Woodpeckers in which it is said that "on a whole, the Downy Woodpecker is one of the most beneficial birds of New England, a persistent enemy of borers, bark beetles, codling moths, and other destructive tree pests; and the Sapsucker, which may be more or less destructive in the northern forests, apparently does little harm to orchards in Massachusetts." A review of the bird-life of the year should be both stimulating and useful to field-students, and a preliminary report on an ornithological survey of the State promises most interesting results. A recommendation for the publication of a 1200-page illustrated monograph

on the birds of Massachusetts, by Mr. Forbush, we are glad to learn has been approved, and it is safe to predict that this work will take its place in the front rank of state documents on birds.—F. M. C.

ANNOTATED LIST OF THE AVERY BIRD COLLECTION IN THE ALABAMA MUSEUM OF NATURAL HISTORY. By ERNEST G. HOLT. Biographical Sketch of Dr. William Cushman Avery, by his sister, Mary E. Avery. University, Ala., 1921. 8vo, 142 pages; frontispiece.

The State authorities of Alabama are to be thanked for publishing this account of the life of a fellow-citizen of whom they have reason to be proud, together with a record of his contributions to our knowledge of Alabama birds. The latter includes a list of the 216 species in his collection with often extended notes on their habits extracted from his journals.—F. M. C.

BULLETIN OF THE ESSEX ORNITHOLOGICAL CLUB. Vol. III. No. 1, December, 1921; Salem, Mass. 8vo, 88 pages, 1 plate, 1 map.

The editor of this publication, Arthur P. Stubbs, reports that the Essex County Ornithological Club has had a year of unusual activity. Its membership limit of 75 has been reached, it has purchased a camp, and its meetings have been better attended than in any previous year.

In addition to a record of meetings, the annual bird-list, notes etc., this Bulletin contains papers on 'The Wild Turkey in New England' by Glover M. Allen, with a map showing that the bird reached the northern limits of its range at the mouth of the Penobscot; 'The Status of Certain Ducks at Wenham Lake,' by John C. Phillips; 'The Terns of our Coast; a Retrospect and Prospect,' by Charles W. Townsend, M.D.; 'How Much Do Loons Use their Wings Under Water?' by Edward Howe Forbush; 'Some Buzzard Bay Birds,' by Winthrop Packard; and 'Changes in the Essex County Avifauna,' by S. Gilbert Emilio.—F. M. C.

The Ornithological Magazines

THE AUK.—The January, 1922, number, which begins the thirty-ninth volume of *The Auk* (the forty-seventh, with the 'Bulletin of the Nuttall Ornithological Club,' of which it is a continuation) opens with 'In Memoriam: Joel Asaph Allen,' by F. M. Chapman, with frontispiece, portrait photograph. As Editor of *The Auk*, Dr. Allen was the pilot of a publication which for so long has carried forward the genius of American ornithology. Though he had the satisfaction of surrendering the helm to other able hands several years before his death, *The Auk* will remain, among other things, a monument (which he would appreciate) to his interest and work in ornithology. "It is impossible to consider Dr. Allen's career without feeling that few men have more nearly and more happily approached the full measure of their potential achievements."

C. W. and Enid Michael record detailed behavior studies of a mated pair of Harlequin Ducks, evidently nesting, in the Yosemite Valley, Calif., though the nest could not be found. These Ducks were particularly fond of bread, and by means of a floating food-tray remarkable photographs (two full-page plates) of this beautiful, bizarrely colored bird were obtained.

'A Myrtle Warbler Invasion,' by C. L. Whittle, records a remarkable concentration of the bird moving northward through the outer coastal wax myrtle belt near Charleston harbor, S. C., 24000 individuals (estimated) being observed at one point.

"What birds *can* be satisfactorily identified in the field?"—"When is a sight record of scientific value?" These are questions of interest to bird-lovers and to modern ornithologists who must supplement a knowledge of the dead bird with that of the living. They are ably discussed by Ludlow Griscom in 'Problems of Field Identification,' from the point of view of the professional ornithologist, and also of the amateur observer. His paper should be given serious consideration by everybody (though everybody will not agree with all its details), for nowhere else in the field of science is the personal equation more constantly to be faced and reckoned with than in such matters.

'A Calendar of Bird Migration,' by Norman Criddle, refers to a locality in Manitoba, and is based on twenty-five years' observation summarized in tabular form. 'Supplementary Notes on the Birds of Berkshire County, Massachusetts,' by Walter Faxon and Ralph Hoffman, gives faunal data on some 47 species. "The European Starling is now generally distributed as a permanent resident through the Housatonic Valley towns." 'Bird Distribution in Eastern Kentucky,' by R. E. Horsey, lists 84 species.

C. J. Hawkins in 'Sexual Selection and Bird Songs' discusses a fascinating subject, one which, it seems to the reviewer, would be elucidated by a better knowledge of the doubtless several functions of a bird's song. Hawkins would have us believe that tendencies to a variation in song simultaneously effect numerous individuals in a given area and are fixed by isolation as physical, racial characters doubtless often are. In 'Notes on Tubinares,' R. C. Murphy calls attention to a first North American record of the Yellow-nosed Mollymawk, a wanderer from the southern ocean; to the fact that the Mediterranean as well as Azorian, etc., race of Cory's Shearwater has been taken off Long Island, N. Y.; and to what is known of the range of Hornby's Petrel, recently found to be common off Peru, and probably not entitled to a North American status, even as a wanderer. H. C. Oberholser concludes that the Long-eared Owl, and the Snowy Plovers of the Pacific Coast, are but geographic races of species found in both the Old and New World; and that Hutton's and Anthony's Vireos are indistinguishable even as races. Other papers are 'A New Burrowing Owl from Colombia' (Stone), 'Thirty-ninth Stated Meeting of the American Ornithologists Union,' and 'Report of the Secretary [of the A. O. U.]' (Palmer).

'General Notes' contain a variety of items, mostly of faunal interest. McAtee supplies data on the food of the Guacharo or Oil-bird, remarkable among birds allied to the Goat-suckers in being a fruit-eater; and there is interesting matter on the habits of the Short-billed Marsh Wren near Montreal, Canada, by L. McL. Terrill.—J. T. N.

Bird-Lore

A Bi-Monthly Magazine
Devoted to the Study and Protection of Birds

OFFICIAL ORGAN OF THE AUDUBON SOCIETIES

Edited by FRANK M. CHAPMAN

Contributing Editor, MABEL OSGOOD WRIGHT

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Bird-Lore's Motto:

A Bird in the Bush Is Worth Two in the Hand

A MAGAZINE for young men has sent out a series of questions regarding the principal requirements of various vocations, with the object of securing information which might be of service to its readers in choosing a profession. We have been asked to reply to these inquiries as an ornithologist, and, believing that the readers of BIRD-LORE will have an especial interest in what we consider to be the requirements of the profession of ornithology, so far as they may be revealed by these questions, we present our answers to them below:

REQUIREMENTS

Physical.—A sound body no less than a sound mind.

Mental.—An inborn love for the study of nature with so intense an interest in birds that they, more than any other forms of life, demand one's attention. Love of truth for truth's sake: patience, accuracy, imagination, and thoroughness in investigation; fairness in making deductions: clearness and reasonableness in forming conclusions.

Educational.—A good general education, with at least a reading knowledge of German, French, Italian, Portuguese and Spanish, and for an American, ability to speak the last named language. A general biological training with work in botany, geology, physical geography, and climatology, and intensive studies in ornithology, including embryology, anatomy, classification, zoögeography, life-histories and the relation of a bird to its organic and inorganic environment.

Social.—Tact, courtesy, and consideration

for the perhaps wholly different viewpoint of others promoting success in exploration; sympathy with fellow-students and a desire to impart information leading to success in laboratory, classroom, and lecture-hall.

General.—Confidence in the value of one's profession to mankind; definite research problems with a carefully conceived plan of study and a steadfast, persistent adherence to it.

CHARACTERISTIC CONDITIONS

Nature of Work.—Includes the study of evolution, zoögeography, economics, pedagogics, and æsthetics as they may be interpreted or expressed in the lives of birds; its exact nature to be determined by the requirements of one's position, by opportunity, and by preference.

Environment.—Field, laboratory or classroom, or all three.

Personnel.—In the field, hunters, guides, etc.; in the study in classroom, one's colleagues, assistants, or students.

Experience.—To be acquired in practice.

DISADVANTAGES. Inadequate remuneration. The salary received may be sufficient for one, but it is usually too small to meet the requirements of a family.

ADVANTAGES. Opportunity to follow one's chosen calling; to gratify an insatiable desire for research; to make work play, and, whether indoors or out, daily to renew one's joy in life.

COMPENSATION. As a collector: From expenses to \$200 per month and expenses. In the study: From \$1,200 to \$5,000 per annum.

ADVANCEMENT. Not to be measured by office standards but by the degree of success achieved through one's labors.

SOCIAL SERVICE. Limited only by one's belief in the value to man of contact with Nature and by one's ability to prove that Nature's beauty, joy, and freedom are most eloquently expressed in the lives of birds.

RELATED OCCUPATIONS. To be determined by one's civic conscience. The Audubon Societies, Nature-Study Clubs, Boy Scouts, and allied organizations offer abundant opportunity to practice as well as to preach,

The Audubon Societies

SCHOOL DEPARTMENT

Edited by A. A. ALLEN, Ph D.

Address all communications relative to the work of this department to the Editor, Cornell University, Ithaca, N. Y

BIRD-PLAYS FOR THE SCHOOL

It is said that if we could utilize the energy that is expended in play, the wheels of industry could be turned without work. Certainly man likes to play and it is equally certain that he does not like to play alone. Moreover, he needs to play. The old dictum, "All work and no play makes Jack a dull boy" applies to grown-ups as well as to children. Man must have recreation and he must enjoy it with others. Man is a social being, and even if he could play all the time, it would not satisfy him if he played alone. It is the society, the club, the team that satisfies because it combines recreation with social intercourse. The value of this social recreation, this playing together, is recognized, today, not only in the schools and churches, but even in the larger industrial plants where the efficiency of the workers counts for as much as the perfection of the machines. And so these factories have their recreation-grounds, their dances, their baseball games, anything to get the employees to play together and develop teamwork.

The idea of getting workers to play together is not a new one, it is merely finding expression in new ways. The old-time folk dances, the parades of trades unions, the church socials, the Sunday-school picnics, grew out of this same desire to bring together the workers in a common field for mutual recreation that they might learn better to work together. Today we are hearing more about Rotary Clubs where all kinds of business men get together for a sociable hour and luncheon once a week, of community sings, and even of community drama, all making for friendly coöperation or neighborliness, one of the greatest needs of any community.

During the World War men and women of every class learned how to work together for a common cause. There was one great ideal binding them together and urging them on. The spirit of self-sacrifice was in the air and that democratic spirit of neighborliness was felt as never before, and the country grew better for it. But it was work, and as soon as the war was won, the world slumped. Communities had learned to work together but now everyone was ready to relax, and communities had not yet learned to play together. Of course, each community had its ball nine and knew how to gather on the sidelines and shout, but, after all, those who actually participated in this community sport were a very small minority. The ball nine, the bowling-league, the sewing-

circle, the subscription dance, the Chautauqua lectures, and the church socials may include everyone in town and give everyone some form of recreation, but they are as little aid to coöperative service as a pasture full of wild horses are to the farmer who is ready to plow. There should be some one form of recreation which includes everyone in the community and in which everyone has an interest and, at least, takes some small part in order to have teamwork and establish true neighborliness.

Now what has this to do with a school-play or with birds? Just this: We have all been working for years for the protection of birds or to awaken an interest in birds in our home communities. Is it not about time we began to play or, at least, began to get our neighbors to play at protecting birds. Perhaps we have not been very successful in getting them to work for birds, but possibly they would be willing to play, if their children were in a school pageant, or masque, or play, based upon some phase of bird-life. I know they would. Of the communities I am familiar with, the ones which show the greatest spirit, the most widespread interest in birds, are those in which not only the real bird-lovers have been working for the birds, but in which some school-play or masque or pageant has been given by the school children. This common endeavor arouses many parents who have never before listened to birds' songs.

In 1916, New York City presented a masque by Percy Mackaye called 'Caliban.' I say New York City presented it because several thousand persons of every station of life took part and every nook and corner of the city was searched for costumes and accessories. Everyone felt that he was taking part in it because he had furnished an aunt or a cousin or a family heirloom to help make it a success. And it was a success and had a far-reaching effect, not only upon the modern drama, but upon the people of New York City that took part or helped to make up the audience. And it has been repeated with equal success in St. Louis and Boston.

Perhaps the most successful bird club in the country is that at the small town of Meriden, N. H., located twenty miles from a railway station. One of the reasons for its success and its far-reaching help to similar organizations goes back to 1913 when it presented a bird masque by the author of 'Caliban,' entitled 'Sanctuary.' Bird club and town are, today, almost synonymous, for there is such a unity of spirit that rose from their common effort in presenting this masque. Much of the credit goes to Mr. Ernest Harold Baynes, the leader and director, for no masque or pageant or school-play can be a success without an efficient director. In fact, the first thing to do when you decide to give a school-play is to look about for the best director that the school or community affords. Find him before you even decide whether to give an original play or one of those which you will find in BIRD-LORE or elsewhere. Don't be afraid to invite him or her to undertake it, for even the busiest are flattered by an offer to direct something, and to those that have the gift, it is almost a mania. They would rather direct than eat.

Next, find someone who can write a bird-play, or else write it yourself, basing it upon some phase of bird-life like the return of the birds in the spring; the value of birds in the garden; the need for feeding the winter birds; the need for bird-houses or bird-baths, etc. The more local interest that can be woven into it the better. The talent to write a good play is scarcer than that to direct, however, and it may be necessary to utilize one that has been used elsewhere. 'Bobbie in Bird Land' that was printed in BIRD-LORE Vol. XIX, No. 6 has been presented successfully in a number of places and will be found quite easy to costume and present in the ordinary school.

A word of caution should be given to the one who is to write the play. Above all else, use familiar American birds as the characters and have the facts employed accurate. Do not introduce Skylarks, and Linnets, and Nightingales and other foreign birds into an American landscape, and do not have summer birds appearing in winter or winter birds in summer. It may well be that the one in the community most familiar with birds is not the most capable of writing the play, but his knowledge should be used to correct any errors of fact that are likely to creep in through the desire of the author for additional color or music in some scene.

A very simple form of playlet for the younger children can be presented very attractively by costuming them to represent different birds that are the actors in well-known bits of bird-poetry or prose. Let each child recite that portion which refers to the bird which he represents. Such a playlet was presented very successfully by the boys of St. Andrew's Natural History Club, of Stamford, Conn., under the direction of Miss Albertina Schleinkofer, from whom the details can be secured. Lines from Longfellow's 'Studying Nature' and 'The Birds of Killingworth' were used, as well as 'The Song of the Birds' by W. W. Caldwell, and parts from Tennyson and Whittier on the Blackbird and the Gray Parrot. Our bird literature is full of beautiful lines that could be used in this way, and the expense of making costumes from crepe paper or cheese-cloth is not great. No plot is necessary, each 'bird' entering, reciting his piece, and retiring to the back of the stage. A song or a recitation by the entire group makes a fitting conclusion.

A somewhat more elaborate bird-play, entitled 'Nature's Follies,' was presented very successfully by the Audubon Society of the Williamsport (Pa.) High School, under the direction of Miss M. M. Bubb, from whom a copy of the play can be secured. Describing it, Miss Bubb states:

The play was written by Carolyn Wein, a member of the Society. The theme of the play was to interpret the lives of birds, flowers, and grasses into terms of everyday life, and in that way to link the out-of-doors more closely with human life. The main plot dealt with the domestic troubles of the Robin family.

All the costumes were designed and made by those taking part in the play, with the assistance of several members of the High School Parent-Teacher Association interested in the work of the Society. Most of the costumes were made of crepe paper, and an endeavor was made to have the effect and coloring as natural as possible.

As the curtain rose for the first act, the 'Spring Song' was played by a piano, violin, and cello trio. The scene was a large garden in early spring. Wire strung across the back of the stage was interwoven with greens so that it gave the appearance of shrubbery in the background. A white fence was placed in front of the shrubbery and rhododendron plants decorated with crepe paper flowers, on either side of the gate, completed the background. Tree stumps and two garden seats completed the setting.

The grasses, nine girls costumed in green, were lying in various positions on the stage floor. The daffodils were grouped in the background. Father Time and Mother Nature were awaiting the coming of Spring.

The grasses stirred and awoke. With Isabel Brown, as solo dancer, they rendered a musical number consisting of a dance and song, 'Welcome to Spring.' Then at the call of



COSTUMES REPRESENTING DAISIES

Human flowers add much to the stage-setting and provide parts for many additional children in the bird-play

Mother Nature the flowers woke up. Spring entered dancing, and after being welcomed by the different groups was reprimanded by Father Time for being late. Then the daffodils danced and the early spring birds came trooping in. The Junco said good-bye, just as Mr. Robin and his family came rushing in. They were late because they had been held up by a snowstorm. After a general renewal of acquaintances, the scene ended with a bird-hop.

In the second act the daisies were on the stage as the curtain rose. The scene was the same as in the first act, only the rhododendron was not blooming, and the flowers in the background were sunflowers, nasturtiums, sweet peas and pansies.

Mother Nature was worried about the flowers since everything was affected by the extreme heat and lack of water. A terrific storm came up and the birds dispersed. It was during this act that the trouble of the Robins began. Mr. Robin became very angry because of an accusation brought against Mrs. Robin by Mr. English Sparrow. He left Mrs. Robin heartbroken. The other birds endeavored to console Mrs. Robin as another storm came up. After the storm Katydid appeared out of the darkness and sang 'Katy Did It.'

The third act opened in late fall. The garden was strewn with dead leaves, and bitter-

sweet vines hung over the fence. Mr. and Mrs. Robin were reunited just before time for their departure to the South. The grasses sang 'Farewell Robin Redbreast.' The flowers fell asleep and Queen Winter came with her snow fairies. The act closed with a snowstorm.

The physical training teacher took charge of the dancing. The songs were suggested and directed by the music teacher. The whole play was directed by a paid coach.

Enough money was cleared for the purchase of two bird-baths. These baths will be dedicated in March. One bath is to be placed on the boys' side of the building in memory of John Burroughs. The other is to be placed on the girls' side of the building in memory of Beryl Wurster, former secretary of the Society who most excellently took the part of Mrs. Robin in the play. Beryl was drowned last summer while bathing in the river.

The Audubon Society of the Williamsport High School consists of three divisions: the upper class section, the sophomore section and the freshmen section. At present there are almost two hundred members. Each section meets twice every month during the activities period.



**COSTUMES USED BY WILLIAMSPORT AUDUBON SOCIETY IN REPRESENTING
NATURE'S FOLLIES**

Birds, Spring, Father Time, Mother Nature, Queen Winter, Crocuses, Tulips,
Sweet Peas, Pansies and Daffodils

The ideal way to present a bird-play is out of doors, in some natural amphitheatre, but this is not always available, and one attempting a bird-play for the first time might hesitate to start on the scale necessary to make the out-of-doors event a success. One should bear in mind, however, that the more actors that are used, the more people that are directly involved, the greater will be the success of the undertaking, financially as well as otherwise.

By all means interest the editor of the local paper. He can do much to make

the undertaking a success by the nature of the publicity he gives it. Do not wait until it is all over before announcing the names of those who take part, the names of the committees, and those that have made or donated costumes and accessories. Let the element of surprise be in the play itself rather than in these matters.

When you have selected your play and your director, next select your general committee, each member of which will be chairman of a subcommittee on costumes, on the stage and accessories, on publicity, on programs and tickets, etc. Then proceed to select your children for the various parts, using discretion not only to get the right child for the right part, but to have as many families and divisions of the community represented as possible. The addition of dances and choruses will provide parts for all.

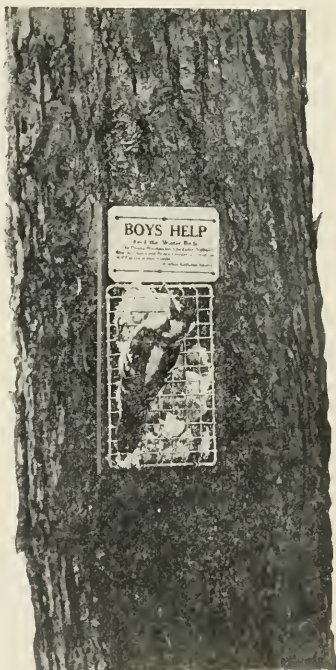
Costumes and stage-settings should be very simple. The more things that can be borrowed for the occasion, the larger the audience is likely to be. Cheese-cloth and crepe paper will serve for practically all costumes that have to be made, and the manual-training class and the sewing-class will be glad to contribute their services.

Above all else, decide what the funds resulting from the play are to be used for before you start any publicity. If possible, make it something for the welfare of the birds that will at the same time fill some community need such as bird-baths for the school-grounds, as at Williamsport; bird-books for the library; feeding-stations and bird-houses for the park, or materials with which to build them and feed with which to maintain the feeding-stations; the financing of public lectures on birds, or whatever your community needs most and would be most willing to support.—A. A. A.

FROM YOUNG OBSERVERS

BOYS HELP FEED THE WINTER BIRDS

The boys of the Columbus (Ohio) Audubon Society help feed the winter birds by helping others to do so. They are manufacturing in considerable numbers a suet-holder which sells for a low price and is easily made. It consists of an ordinary wire soap-holder, from which the long wires have been nipped, fastened to a small board by two screw-eyes, which serve as hinges, and a hook at the top



THE COLUMBUS AUDUBON
SOCIETY'S SUET-HOLDER
MIGHT WELL BE IMITATED
BY OTHER CLUBS

which fastens it shut. The board is attached to a tree by two screws, the wire basket filled with suet and closed, and all is in readiness for the birds.

A novel way of advertising the Audubon Society and at the same time helping to elicit the coöperation of the children is by means of the printed card fastened to the board above the suet which states in bold type that "*Boys help feed the winter birds,*" followed by a list of the birds that can be expected to feed from the suet-holder. Who can resist such an appeal and what bird decline such help? Other bird clubs might follow the lead of the Columbus Audubon Society and decorate all the trees in town with these lunch-counters.

A PINE GROSBEAK IN NEW JERSEY

On December 16, my Nature-teacher, Mrs. Gladys Gorden Fry, and I were walking about in a small evergreen thicket composed chiefly of red and white pines and a few hemlocks.

Suddenly I saw a large bird, about the size of a Northern Shrike, and as a few of these birds had been seen lately in the neighborhood, I thought it quite probable that this was one. However, as we came around the trunk of a large tree, we saw the bird, which proved to be the Pine Grosbeak, quite plainly. He was sitting on the branch of the next tree, eating its cones and buds.

We remained quite still, but in a few minutes it flew to a young cedar and from there to a bank covered with tangled honeysuckle vines.

We watched the bird for fifteen minutes at least and although its black beady eyes were fastened on us it was very tame. During the time we were watching it we were only about two yards from it, but we could not tell whether it was an immature male or a female.

The rest of the birds I saw that day were, Tree Sparrow, Junco, Downy and Hairy Woodpecker, Whitebreasted Nuthatch, Crow, Blue Jay, and Black-capped Chickadee.—CYNTHIA DRYDEN KUSER (age 11 years), *Faircourt, Bernardsville, N. J.*

[The Pine Grosbeak is a rare bird so far south as New Jersey and Cynthia is to be congratulated upon her discovery.—A. A. A.]

A MILITANT KINGBIRD

On the farm where we spend our summers, many interesting incidents have occurred, which, as bird-lovers, we would like to share with others.

Three years ago a pair of Kingbirds raised a family in an old pear tree near our house. When the young left the nest, we took much pleasure in watching one of them which, for two days, spent much of the time on a brush-pile back of the house.

The next year the Kingbirds came back (we think it was the same pair), only to find their special place taken by a pair of Chipping Sparrows. The

Kingbirds did not quarrel with the Sparrows, as we had expected, but flew off to an old apple tree a short distance away and there built a nest.

These birds seemed to take a special dislike to a man employed on the farm whose homeward path lay directly under the tree where the birds had their nest. When he started for home the Kingbird would fly to meet him, a distance of about 50 feet from the nest, and fly close to his hat until about the same distance the other side. Should the man stop an instant, Mr. Kingbird would give the hat a peck. The same performance was repeated every time he passed during the nesting season, no matter from which direction he came, yet he had never molested the nest in any way. Others passed without the slightest sign from the bird.

That year seven different kinds of birds nested in our dooryard. Last year the Kingbirds returned to the same tree and we hope to see them again next spring.—GEORGE W. NEUBAUER (age 14 years), *Bristol, Conn.*

[The fact that birds learn to differentiate between people is strikingly shown about game-farms and aviaries where the keeper is always welcomed with a rush of wings and where a stranger gets a cold reception from the birds. That this is more or less true in the wild state is shown by little incidents such as this related by George. Perhaps they more often mistake friends for enemies than they do enemies for friends. They could make the latter mistake but once.—A. A. A.]

AN EVENING WITH THE BIRDS IN AN ENGLISH PARK

A bitterly cold north wind had been blowing all day; it scurried and whistled as it drove through the pine trees, and the young oaks swayed and tossed with the full fury of the blast. There was no movement in the great park, for the pitiless hurry of the icy wind had searched out every hidden vestige of cover.

As suddenly as it had come, the great wind dropped, but the grey, snow-laden clouds still hurried each other over the landscape.

Towards the middle of the afternoon the sun rose above the clouds in an immense fiery ball, but within an hour's time it was blotted out by the snow which drove down upon the park in a thick, silent wall of falling whiteness; but it was only the winter's last touches and the ground was barely sprinkled by it.

We came in by the little gate in the boundary wall; silence slept in every thicket and the withered leaves of the previous autumn rustled and scraped as we passed. All at once a sleepy cock Pheasant called from the trees in the valley as he flew to his roosting-place in the pine trees. A hen answered him with a startled *cock-cock*, and she, too, flew away over the tree-tops. All around us became alive with little voices; a Blackbird from up the hillside began to sing with light and buoyant snatches of song; and a perky little Wren chattered to himself in the undergrowth, for all the world like a little brown leaf creeping through the bushes; rabbits loped across the path, flicking their

little white tails; and from the opposite hill a Grasshopper Warbler reeled out his challenge and was answered faintly from down the valley.

We built a little shelter under a young oak with the loppings the woodcutters had left and we covered ourselves over and waited. The feathery arms of the snow silently drifted through the trees while a light breeze stirred the branches above us and as evening settled in we became part of the leaves and the undergrowth.

An Owl from a tall oak nearby called his hunger to the moon, and, spreading his wings, he silently flew down through the trees to an old stump not five yards away—motionless as a dead branch he stood, but nothing moved amongst the dead brushwood, and presently he flew away down the valley on noiseless wings.

A little way down the hill was a moist patch of ground covered by a year's growth of poplar. From time to time as we listened we could hear faintly little sucking and whistling noises, as of some night-bird feeding; nothing could be seen, for the valley bottom was hidden by thick shadows and the moon had not yet risen, but presently there was the tiniest, light, high-pitched scream amongst the trees higher up the valley, and again it sounded directly behind us. The sound seemed to zig-zag between the trees, and suddenly a little brown bird flicked through a gap in the trees. It passed on behind us to the little marshy ground, for we could hear the peculiar croaking cry it made as it circled amongst the trees. But barely had we had time to realize that it was a Woodcock flying to its feeding-grounds when again the little croaking cry was heard, this time high above the trees, and, passing in a circle round us, a Woodcock flew into the moonlight. Its little head turned anxiously from side to side and his long beak showed out black in the pale light. It was a male Woodcock searching for a mate—a male will fly to the breeding-haunts in a park four or five times and will then fly off with his mate, who has been brooding her eggs, to the feeding-grounds.

The clearing seemed alive with Woodcocks zig-zagging through the trees, for we were in the middle of the feeding-grounds.

All at once, through the space between two huge leafless oaks, darted a pair of Woodcocks, following each other and flickering between the open spaces. They came straight for us—to our little shelter—and settled amongst the dead leaves at our feet. Such neat and trim little birds they were, with the snowflakes drifting past them and melting as soon as they touched their backs! One little fellow had evidently seen us, as he strutted about, for his protruding eyes were full of fear and mistrust. They whistled to each other and presently they flew off to the little marsh down the valley, their peculiar croaking cry getting fainter and fainter as they disappeared in the dense shadows.

We rose, all stiff and aching, from our bed of leaves—not an animal stirred—and, as the frosty night settled in, we found our way over the boundary wall to our camp on the hillside—a hungry vixen screamed as we lay by the fire and

we wished her good hunting.—ROBERT R. PAINE (age 16 years), *St. Loes House, Amberley, England*.

[American boys and girls will be interested in this vivid word picture of early spring in England. In England, however, as here, it is only those who dare the weather who get as close to nature as Robert.—A. A. A.]

AN ORPHAN ROBIN

On the rain-pipes under the eaves of our home, a pair of Robins built their nest where we had a good opportunity to watch them. Three eggs were laid and hatched. The baby Robins were about twelve days old when the mother bird disappeared. The father continued to feed them. Two days after the mother failed to appear, one of the little ones fell out of the nest. We put the baby bird back, and the father seemed greatly distressed. It fell out again. The father did not feed it, and we were afraid it might be hurt in falling, so we took it to our Audubon leader. She put it in a discarded nest. At night the nest was kept in the house, and at daybreak the little thing would call for food. He was fed worms and grubs, berries and bits of cherries and given water from a baby spoon whenever he seemed hungry. During the day the nest was put in a little basket and tied to a tree near the door.

I kept the Robin over one Sunday and once when he was hungry my brother referred to him as 'Petie,' and after that he went by that name.

He was about nineteen days old when his tail was so long that he would no longer stay in the nest. He was given every opportunity to be a wild bird. An aluminum band was placed on his leg with 'Pete' engraved on it. He was soon flying everywhere and learned to dig his own worms, pick up ants, and take a bath. At first he came to the doorstep early in the morning and called for food, and often during the day. We noticed that he slept a good deal. He liked bread and milk, cooked peas, but best of all he liked cherries. As he grew larger he came and begged for cherries, and he would alight on one's shoulder and pick the cherries from a person's mouth.

When he was first taught to pick up his own food it was funny to see him open his mouth before the worm which was dug for him, and speak to it, as if he expected the worm to crawl in his mouth. He must have liked red for he would pick at anything red, even the disk on the camera.

He was a full-sized bird when the band on his leg was made more secure one evening. It was done very carefully, but he must have resented it, for he never came back to us. 'Petie' had been handled very little. That fact, and having plenty of water with every meal, we think are partly the reasons why we were successful in raising him.—MARGARET KAY (age 13 years), *Milwaukee, Wis.*

The Audubon Societies

EXECUTIVE DEPARTMENT

Edited by T. GILBERT PEARSON, President

Address all correspondence, and send all remittances, for dues and contributions, to the National Association of Audubon Societies, 1974 Broadway, New York City. Telephone, Columbus 7327

T. GILBERT PEARSON, <i>President</i>	
THEODORE S. PALMER, <i>First Vice-President</i>	WILLIAM P. WHARTON, <i>Secretary</i>
FREDERIC A. LUCAS, <i>Second Vice-President</i>	JONATHAN DWIGHT, <i>Treasurer</i>
SAMUEL T. CARTER, JR., <i>Attorney</i>	

Any person, club, school or company in sympathy with the objects of this Association may become a member of it, and all are welcome.

Classes of Membership in the National Association of Audubon Societies for the Protection of Wild Birds and Animals:

\$5 annually pays for a Sustaining Membership
\$100 paid at one time constitutes a Life Membership
\$1,000 constitutes a person a Patron
\$5,000 constitutes a person a Founder
\$25,000 constitutes a person a Benefactor

FORM OF BEQUEST:—I do hereby give and bequeath to the National Association of Audubon Societies for the Protection of Wild Birds and Animals (Incorporated), of the City of New York.

A LARGE GIFT FOR WILD-LIFE PROTECTION

It will be a source of pleasure and gratification to members of the Association and the friends of wild life generally to learn that on March 1, 1922, the Association received a gift of \$200,000. This splendid donation was made by a friend of the birds and children, who for many years past has contributed with large liberality to the Association's efforts in working with young people. The development of the Junior Audubon Club idea on a large scale has been made possible only because of the generous support thus received.

All gifts from this friend of wild life have been made with the distinct understanding that the name of the donor be withheld, and it is with regret that in making the present announcement we are not at liberty to divulge his name.

This contribution is intended as a partial

endowment of the \$20,000 annual contribution which for a number of years he has been making to the Audubon work. Accompanying the check was the stipulation that the money should be held and known as the "Permanent Fund of 1922." Only the interest is to be used from time to time for current expenses, and by the conditions of the gift it is to be expended as follows:

1. For the education of the general public in the knowledge and value of useful, beautiful, and interesting forms of wild life, especially birds.
2. For the actual protection and perpetuation of such forms of wild life on suitable breeding and other reservations.
3. For protecting and maintaining adequate protection for such forms of wild life in all parts of the Western Hemisphere.
4. Or for any one of these purposes.

FEDERAL LICENSE AND GAME REFUGE BILL

On February 16 and 17, 1922, about thirty-five men, representing various National and local organizations, and also including game commissioners of several states, met in Washington and were given a hearing by the House

Agricultural Committee on the merits of the Anthony bill. This measure proposes to require a Federal hunting license of \$1 of all those in the United States who go afield to shoot migratory game-birds. No change in

the present laws affecting in any way the species that may be taken, or the season or time when they can be hunted, is involved in this proposed legislation. The idea simply is to collect a fund, 45 per cent of which can be used for the employing of Federal game-wardens to enforce the United States laws in reference to game- and non-game-birds. That there is a vast need for a largely increased warden force is apparent to all those familiar, even to a limited extent, with conditions that obtain in the hunting-fields. Likewise, 45 per cent of the income is to be used for the purchase of bird reservations and public shooting-grounds. The remaining 10 per cent is for overhead expenses.

The details of the meeting were directed by John B. Burnham, President of the American Game Protective Association, who had arranged for the hearing. Eight or ten of the friends of conservation who were present spoke in behalf of the measure, including the President of this Association. There were those present who were opposed to the

measure, chief among whom was Representative Ward, of North Carolina, who based his argument chiefly on the rather surprising conjecture that the entire bill was a scheme on the part of wealthy hunting-club owners in his home county to make it impossible for the poor man to hunt. Ex-Governor Riggs of Alaska spoke in opposition to one or two features of the measure which he felt should be modified to safeguard the interests of the people of Alaska.

The Anthony bill has already been reported favorably by the Senate Committee and is now pending in that body. Friends of Conservation are hoping very much that Congress may take favorable action on this important legislation during the present session.

At the request of the home office of the National Association of Audubon Societies, a large number of letters have been written to Senators and Congressmen by members of the Association and officials of affiliated clubs throughout the United States.

IMPORTANT NATIONAL PARK BILL

When Mr. Barbour's bill—H. R. 7452—to establish the Roosevelt-Sequoia National Park in California, was introduced, individuals and associations deeply interested in our National Parks protested against it, because its provisions did not except it from the Federal Water Power Act, and there was always the danger that if its water was seized for commercial purposes—power or irrigation—the rights of the public would be threatened.

These dangers were pointed out to the author of the bill, and he has now submitted from the Committee on Public Lands a bill which removes the threatened danger. He has added a fundamental amendment providing "that no permit, license, lease, or authorization for dams, conduits, reservoirs, power-houses, transmission lines, or other works for storage or carriage of water or for limits of said park shall be granted or made without specific authority of Congress."

It is now the duty of every citizen inter-

ested in our National Parks to write to his Congressmen and to his Senators, urging speedy and favorable action on the amended bill—H. R. 7452. These legislators should be told that the people urgently desire the passage of this bill.

In the enlarged park is to be included an area of nearly a thousand square miles directly adjacent to the present Sequoia Park on the east and north. It is a high country, without apparent economic possibilities for agriculture, grazing, or timber. It possesses marvelous natural beauties, which are constantly becoming better known and more admired. The park will be a splendid possession of the American people. We must all strive to impress our Representatives with its importance.

A statement similar to the above was sent recently to all members of the National Association, as well as to the officers of all affiliated organizations, with the result that many hundreds of letters and telegrams were

received by Senators and Congressmen in Washington. When legislative matters of National value are pending in Congress, it is of the greatest importance that friends of such measures should register their desire for speedy and favorable action. Our National

Representatives are human, just like the rest of us, and naturally are influenced by public sentiment. It is right that they should be so influenced, for they were elected to represent us and usually do so if we but make our voices heard.

NEW JERSEY LEGISLATION

The present session of the Legislature of New Jersey certainly established a new record for indifference in the matter of wild-life conservation. One year ago, a bill introduced at the request of the New Jersey Audubon Society, and pushed by that organization, for the purpose of taking the Bobolink off of the game-bird list and giving it protection, became a law. This did not please some people who wanted the pleasure of shooting these song-birds in autumn and enjoying their diminutive bodies on toast, so the Legislature this year proceeded to repeal the bill and the Governor gave it his approval.

The subject of legislation to restrict the number of vagrant cats has also been before this honorable body. Two bills were introduced, one by the State Board of Fish and Game Commissioners and the other by the New Jersey Audubon Society. The Commissioners' bill passed both Houses and was

vetoed by the Governor as "sumptuary legislation." The New Jersey Audubon Society's cat bill passed the House and at the present time is reposing in the Senate Committee where it may be expected to remain until the close of the session. This Legislature is also considering the advisability of putting a bounty of 10 cents on all Crows killed in the state. The fate of this measure is yet uncertain.

Another bill was introduced to take protection from the Kingfisher. This passed the House of Representatives and is now pending in the Senate, with a good chance of becoming a law.

Fortunately, the general attitude of the present session of the New Jersey Legislature toward wild-life conservation is not typical of that entertained by most state legislatures meeting this year, for many good laws were enacted.

BIRD-BOX CONTESTS

This is the season when contests in building bird-boxes are in full operation throughout the country. The annual contest provided by the *Pittsburgh Chronicle-Telegraph* closed early in March, with an unusually large number of competitors. Many hundreds of splendid, useful bird-boxes were constructed and will be erected in the neighborhood of Pittsburgh.

Many of the Audubon Societies and Junior Clubs are engaged in the same work. Mrs. C. Oliver Iselin, one of the active and loyal members of the National Association, has offered prizes for bird-boxes to be built by the young people of Aiken, S. C., near which her

winter home is situated. One set of six prizes is to be offered to boys, and another series is open to girl competitors.

From all parts of the country we have been receiving requests for information as to how to conduct contests of this character and suggestions as to lists of suitable prizes that may be furnished. This work of supplying nesting-places for the birds that in spring wing their way northward is becoming well established in hundreds of communities. Some of us can remember the time when a movement of this character was an unheard-of enterprise. The country is constantly growing better for wild bird life.

ENCOURAGING HUMANE WORK

Under the direction of Dr. William O. Stillman, President, the American Humane Association is erecting posters throughout the country calling attention to the 'Be Kind to Animals Week,' April 24-29, 1922. Prizes will be given for the best posters dealing with the subject.

In addition to the poster contest, prizes will be awarded by the San Francisco Society for the Prevention of Cruelty to Animals for

the best essays written by Boy Scouts on the protection of animals. The prizes are three, and the amounts \$25, \$15, and \$10.

Other prizes noted on the poster are two of \$25 each awarded by the National Association of Audubon Societies for the best essays on the protection and preservation of birds. One prize is open for competition for the Camp-Fire Girls and the other to members of the Girl Scouts organization.

INDIANA AUDUBON SOCIETY

This has been an exceptionally good year for our Society. Our membership has quadrupled and the interest in bird-protection and-conservation is very marked throughout the state.

Our Society published a spring bulletin and now has ready for printing a fall bulletin. We are also issuing, in coöperation with the Department of Education, an outline of bird-study for public schools prepared by Miss Rousseau McClellan, Supervisor of Nature Study of the Indianapolis schools. This bulletin is to be sent out by the Department of Education to every teacher in the state. We feel that it will be of great practical value to teachers, as it not only gives them detailed instructions as to how to organize their classes for bird-study, but is also a manual of how to conduct their classes. It is the purpose of the Society to encourage and stimulate bird-study in the public schools, and we expect large results from the work thus undertaken.

It is with genuine sadness that we record

the death of our beloved president emeritus, William Watson Woolen, which occurred March 26, 1921. Our Society joined with the Academy of Science and the Indiana Nature Study Club in a joint memorial meeting at Indianapolis, May 20 to 22. We greatly miss his counsel and advice. His presence was always a benediction. He died full of honor, love, and esteem of his fellow men and the abundant admiration of nature-lovers. His enthusiastic love of the birds and the out-of-doors will be a continual inspiration to our Society.

We have already appointed a committee to arrange the details of our annual meeting next May. The meeting will probably be at Indianapolis, and a program of unusual interest is being arranged, which will undoubtedly guarantee a large attendance. Our Society is planning to accomplish greater things during the coming year than it has ever heretofore attempted.—FRANK C. EVANS, *Secretary*.

CONSCIENCE MONEY

"*Dear Mr. Pearson:* Several years ago I bought a hat and let my milliner trim it according to her own taste. She used a small Heron Aigrette with other trimming. I knew nothing about them at that time, but since I learned the sad story of the Aigrettes the thought of that hat has been a painful one,

and the word Aigrette always brings to mind my own offense.

"I paid \$5 for that Aigrette. Inclosed find the same amount. I hope it may save an Aigrette and at the same time ease a conscience that has long been troubled."—(Signed) MRS. HIRAM TOWNS, *Milwaukee, Wis.*

NEW LIFE MEMBERS

Enrolled from January 1, 1922 to March 1, 1922

Auchincloss, Hugh D.
 Bowdoin, George
 Curtis, James F.
 Dowd, Joseph
 Kellogg, W. K.

Moore, Paul
 Moran, John A.
 Schumann, Mrs. J. H.
 Zimmerman, John

NEW SUSTAINING MEMBERS

Enrolled from January 1, 1922 to March 1, 1922

Abercrombie, Mrs. Ronald T.
 Armstrong, Mrs. Duane
 Atkinson, Mrs. H. M.
 Barghoorn, Dr. E. S.
 Bartol, Mrs. Henry G.
 Bechtold, Dr. A. Charles
 Bird, E. D.
 Blodgett, Miss Eleanor
 Burger, Miss Jeannette
 Chiniguy, William F.
 Clapp, Mrs. F. G.
 Clegg, Luther B. (Mrs.)
 Coker, Edward R.
 Dibell, Mrs. Dorrance
 Doane, Geo. W.
 Doering, O. C.
 Drummond, Mrs. E. J.
 DuBois, Mrs. M. B.
 Dudley, Miss Laura F.
 Duer, Mrs. S. Naudain
 Duke, Miss Doris
 Dumond, Mrs. Frank V.
 Eddy, Mrs. E. B.
 Edwards, Mrs. Wm. Seymour
 Farrand, Max., Mrs.
 Farrington, R. I.
 Fell, Mrs. Martha T.
 Fincke, Miss Nancy
 Fisher, Mrs. Janon
 Fulton, Miss D. G.
 Gale, Mrs. Wm. A.
 Gasch, Herman E.
 Gill, Mrs. Robert Lee

Godfrey, Mrs. W. H.
 Green, Master Merrill Mead
 Greig, Walter
 Hair, Mrs. Thomas R.
 Hamilton, Mrs. J. K.
 Hansman, Master Carl Morton
 Harrington, M. H.
 Huntsberger, Russell C.
 Jones, Geo. M.
 Lowry, Mrs. Robert J.
 Miner, Mrs. E. W.
 Moore, Theodore D. W.
 Murray, Mrs. Harriet G.
 New Canaan Bird Protective Society
 Pyle, Mrs. James Tolman
 Reid, Mrs. Bruce
 Reynolds, George G.
 Saginaw Reading Club
 Slaker, Mrs. H. J.
 Smith, Mrs. Flora C.
 Smith, Mrs. Maxwell
 Steagill, Miss Mary M.
 Stillman, William M.
 Thaxter, John
 Towns, Mrs. Hiram
 Trump, R. W.
 Van Ingen, Miss Anne H.
 Walter, Mrs. J. H.
 Wellington, Mrs. C. O.
 Wilson, Mrs. James G.
 Zimmer, G. M.
 Zimmerman, Miss A. W.

GOOD FOR VIRGINIA

It is a pleasure to note that the bill recently pending in the Virginia Legislature, to take all the funds from the sale of hunters' licenses and put them in the State Treasury instead of leaving them in the Game Protective Fund failed of passage.

Mr. Ernest C. Mead, Chairman of the Executive Committee of the Virginia Game and Game Fish Protective Association, says in a recent letter:

"I am pleased to advise the members of our Association that the General Assembly has defeated that part of the budget bill which

proposed to place all of the money from the State Game Department in the General Fund.

"If this bill had gone through, it would have been the ruination of our State Game Department. There is no question but that the defeat of this bill is due to the quick and effective work done by almost every member of the Association.

"In answer to the circular letter recently sent out, I received nearly 500 replies. Our Legislators were simply flooded with letters and telegrams from sportsmen throughout the state, urging them to defeat this bill."



GREEN-WINGED TEAL

Order—ANSERES

Family—ANATIDÆ

Genus—NETTION

Species—CAROLINENSE

National Association of Audubon Societies

Bird-Lore

A BI-MONTHLY MAGAZINE
DEVOTED TO THE STUDY AND PROTECTION OF BIRDS
OFFICIAL ORGAN OF THE AUDUBON SOCIETIES

Vol. XXIV

MAY—JUNE, 1922

No. 3

Bonaventure Island and Percé Rock

By HARRISON F. LEWIS
Chief Federal Migratory Bird Officer, Ontario and Quebec

A COMPARATIVELY small proportion of the bird-lovers of North America have been able to visit the great breeding-colonies of our sea-birds. Persons living near the coast or near the Great Lakes may be able to visit the nesting-places of some species, but most of our bird students, if they are situated where they see sea-birds at all, know them as birds of passage. The reading of vivid pen-pictures of Laysan Island or Great Bird Rock naturally arouses a strong desire to see such wonderful bird nurseries for oneself, but these breeding-places, like most of those chosen by sea-birds, are secluded, distant, and difficult of access. A brief account of a great sea-bird colony, as yet but little known to the public, which can be visited with ease and comfort, may therefore be of interest.

Bonaventure Island and Percé Rock have been visited each spring, for uncounted centuries, by many thousands of sea-birds of several different species, which there lay their eggs and raise their young. These islands are situated near the eastern extremity of the Gaspé Peninsula, in the Province of Quebec, Canada. The distance from the village of Percé, on the mainland, to Percé Rock, is but a few hundred yards, while from Percé to Bonaventure Island is about three miles. Bonaventure Island is about three miles long and a mile-and-a-half broad. On its seaward side are great cliffs of red sandstone, whose broad ledges form secure nesting-places for throngs of sea-birds. Percé Rock is a unique, isolated limestone mass, about 1500 feet long, 300 feet wide, and 288 feet high at its highest point. It derives its name from the fact that it is pierced by a great natural archway, 80 feet in span, through which one may pass in a small boat. Its beauty is enhanced by its display of a great variety of brilliant coloring. As its perpendicular sides are unscalable, its top provides a safe retreat of which the birds have not failed to take advantage. Both Percé Rock and the cliffs of Bonaventure Island are maintained and guarded as bird sanctuaries by the Department of the Interior, Dominion of Canada, and the Province of Quebec.

Beyond doubt the most impressive, interesting, and unusual birds which



A SMALL CORNER OF THE GANNET COLONY IN THE BONAVENTURE ISLAND
BIRD SANCTUARY, QUEBEC

The young birds shown here are assuming the dark juvenal plumage. Photographed by Wm. Duval

nest in this bird community are the Gannets. There are now but two places in North America where Gannets nest. The smaller of these two Gannet colonies, on the Bird Rocks, is comparatively difficult to visit. The larger colony, containing about 8,000 breeding birds, is on the seaward side of Bonaventure Island. The following graphic account of the appearance of this colony is from the pen of Mr. P. A. Taverner*:

"Approaching this side from the sea, one is aware that every ledge and shelf is covered with white as though snow had piled in drifts upon them allowing only the overhangs to show dull red between the glistening surfaces. A wind seems to stir the white masses, and they blow off in eddies and clouds of drifting flakes that finally resolve themselves into great white birds that swirl about the cliff faces and circle round the intruder amid a pandemonium of hoarse cries. These are the Gannets, the Solan Geese of older authors, each as large as a goose, pure white with black wing-tips and a slight creamy wash on crown and hind neck. The air is filled with their waving wings. They fill it like a swarm of giant midges circling in the sun."

One of the boatmen at Percé told me that he thought that persons visiting the Gannet cliffs for the first time should be tied to the thwarts on which they sat, for they commonly became so excited when they beheld the throngs of birds at close range that they were in danger of leaping overboard. He added that, often as he had seen the Gannets on their nests, he could never behold the scene without a thrill of emotion. There are good opportunities at Bonaventure Island to photograph the Gannets and to make intimate studies of their home-life.

*"The Gannets of Bonaventure Island," *The Ottawa Naturalist*, Vol. XXXII, No. 2, p. 21.

Another most interesting species which nests at Bonaventure Island is the Puffin. The Puffin lays its single whitish egg in a hole in the rocky cliffs. Its 'spectacled' eyes and strange varicolored beak give it an appearance of comical solemnity. Its most simple act appears ludicrous. It is so confiding and trustful that it is not difficult to study its interesting ways at close range.

On the top of Percé Rock about 2,000 Double-crested Cormorants rear their young. Other colonies of these birds nest in the neighborhood. Black Guillemots, Common Murres, and Razor-billed Auks all lay their eggs among the rocks of Bonaventure Island, and a few Guillemots have their homes on Percé Rock. Hundreds of Kittiwakes and thousands of Herring Gulls nest where they can find acceptable sites on both of the Islands. And, last but not least, Leach's Petrels, those weird elves of the darkness, maintain large numbers of nesting-cavities on the heights of Bonaventure Island.

Aside from the bird colonies, Percé presents numerous attractions to the summer visitor. Beautiful and unique scenery, salt-water boating, bathing, and fishing, clear and rapid streams and wild Canadian woodland combine to make it an ideal place for a summer vacation. There is good hotel accommodation, although reservations should be made well in advance, and there is an abundance of camping-sites. Percé is reached via the Canadian National Railway System, connection being made from Matapedia by an independent branch line. It is also accessible by automobile, the best road connection being through Campbellton, New Brunswick. Those bird-lovers and nature-lovers who visit it in the nesting-season, between May 1 and September 1, will be many times repaid.



GANNETS AT HOME ON BONAVENTURE ISLAND, QUEBEC
The young birds may be distinguished by their downy plumage and dark bills.
Photographed by Wm. Duval

'Bobby'

By MARY S. MOSHER, Rochester, N. Y.

IT was the middle of May. A pair of Robins had settled their nest on a conductor pipe under the eaves of my house. I often watched them carrying worms to the family and then, one day, a sick Robin was found by the bird-bath in the garden. I picked him up and he died in my hand. The next morning there was another one sick and it also died in my hand. By this time I was disturbed and watched the nest under the eaves. There were no birds going to it and I knew something must be done. I found I could reach the nest through an upper window so I grasped it and brought it down. There were three birds in it, I thought about ten days old, bare on the bodies but feathered on their heads and wings. One of them was dead, but the other two were clamoring for food.

I held the nest in my hand and wondered what I should do. I was tired and yet here were these two babies who wanted to live, and I was their only hope. I was afraid the old birds might have eaten the rat poison we used around the chicken house, and I felt a little responsible for the tragedy. Anyway, I began feeding them and, as my wise friend said, as soon as I gave them the first worm I was lost.

Then, the work began. I am sure they ate a hundred worms a day. I cut them up with an old pair of scissors and crammed as many down their throats as they would take. After that, they would sleep for perhaps half an hour and wake up hungry again. Everyone on the place helped dig and it seemed as if the worm-supply would be exhausted.

I kept the nest in a round, brown basket with a handle. The birds were contented to stay in the nest for about three days, then they began to climb onto the edge of the nest, and after a few days more to sit on the edge of the basket and then on the handle.

The feeding went on steadily. Everyone fed them and loved them. No mother was more devoted than I. If I went to a 'movie' I rushed home to see if they were all right and, of course, always found them ready for food. After they had been with me for about ten days, I accepted an alluring invitation for Sunday dinner and was gone three hours. When I came back the birds looked weak and sick and the next morning one of them was dead. At first I thought it was the bright one with the dark head that had died but I soon found that it was the dull, heavy one, and the bright one was still alive, so I took heart and started in again.

I think 'Bobby,' as I began calling him, must have had the will to live because I know I made all the mistakes possible, but I was devoted to him and did my best. After this it was just one thrilling thing after another. I wondered how I could teach him all the things he must know but he seemed to have them all in his own nature. I had only to watch him do them. By this time he was hopping around the garden and I would dig worms and give them

to him. Suddenly he picked one up himself. That was a great moment. It grew into a habit that at sundown I should follow him down the garden path. He would pick up endless ants and one night he investigated a barrel of rubbish and flew from it onto my shoulder.

For the first month of his life with me he slept in his basket on the sleeping-porch where I did. One Sunday night he was with me as usual, but toward dark he seemed to become excited and suddenly flew up in a tree and did not come down. The next morning as soon as it was light I called to him. He came down at once to my shoulder, and I fed him and he seemed glad to be taken care of.

I devised a scheme, then, to make it possible for him to get into the house when he wanted to. I tore a corner in the screen of the sleeping-porch, making a hole just big enough for him to hop through. My friends laughed at me for expecting him to learn to go through a little hole like that, but he did.

I coaxed him with the cheese that he had come to like better than anything else, and he soon flew in and out as he wanted to. I kept food there and he came in and helped himself. He often came in the early morning and would wake me up with his insistent little chirp. He amused himself pulling my hair and pecking at my eyes. I used to keep my hand over my eyes and peek through my fingers at him; he was so funny.

I wish I could tell all the bright, happy things he did. One morning when he had just begun to fly I left him alone on the back porch and went to work among the flowers. I wanted to see what he would do, and he flew straight for me and settled in my neck under my chin. He was a dear thing. I was the only mother he knew and he came to me as young Robins follow their parents.

One morning he disappeared and my heart sank! There were so many things that might happen, but after a couple of hours a neighbor brought him home. She found him on the porch of the Hospital next door. He insisted on sitting on the shoulder of a half-blind patient, and the patient was distracted and was trying to brush him off. The nurse separated them and took Bobby into the children's ward where he had a beautiful time. He often ate his meals with me in the dining-room, hopping over to the flower-dish in the middle of the table when he wanted a drink of water. He was afraid of nobody and amused everybody by flying onto their heads or shoulders when they came to the house.

At this stage I was afraid he might degenerate into a pet Robin, and I had visions of a floppy Robin always hanging about instead of taking care of himself. I tried to discourage him from staying in the house too much. He would always fly up to a window when he saw me, and I sometimes refused to let him in. However, he soon flew farther and farther afield and seemed to get stronger. He was a great talker when he was with you, carrying on quite a conversation, a low chirping in his throat. I hoped he would sing but he never did.

He stayed until the middle of July. One night he came when I called him and looked at me from a low branch, then he turned his back to me and flew into a high tree. I said to myself, "Young man, I guess you are grown up and don't need your mother any more." The next day I was away but the family said he came back; after that he never returned.

I had told him more than once that I wanted him to be a real Robin and do as Robins do, but that I hoped he would come back next spring and build his nest in my garden and bring his family to see me and I am expecting that he will. So if I ever see a Robin coming through the hole in the sleeping-porch screen I shall know it is 'Bobby.'



WOOD THRUSH AND YOUNG
Photographed by Joseph Pollock, Carman, N. Y.

Two Hummingbird Photographs

THE following facts were communicated to us by Mr. Ira Barrows, under whose direction the photographs here shown were made. The nest was found at Red Bank, N. J., early in July, 1921. The photographs were sent to BIRD-LORE by Mr. Barrows, from whose letters we abstract the following notes:

On July 9, the nest contained eggs and a week later the heads of the young birds could just be seen when raised above the edge of the nest, but they were still too small to be seen when feeding. At the end of the second week, or



RUBYTHROAT BROODING
Photographed by A. R. Coleman

about July 23, pictures were secured which show this remarkable operation.

On August 4, the young birds were still in the nest, which they more than filled. On this date the birds were under observation by Mr. Coleman, the photographer, from 2 to about 4 P.M. From 2 to 3.45 P.M. neither of the parents was seen. During this period the fledglings constantly tried their wings, and at 3.30 one of the young left the nest and flew about in the large

oak tree in which its home was built. Fifteen minutes later the other young bird flew from the nest to a neighboring limb and thence to some nearby flowers from which it fed—a remarkable demonstration of inherited habit. At this time the mother appeared and flew about with the second young. She doubtless had been watching them both all the time. The presence of the photographer did not, so far as he could tell, in any way frighten or annoy the birds or cause them to leave the nest, before the time nature had set for their departure. The male was never observed and neither the female nor the young were seen after the day that the young made their first flight.—ED.



RUBYTHROAT FEEDING YOUNG

Photographed_by A. R. Coleman

City Birds

By ANNE HALL GAYLORD, Atlanta, Ga.

IN LEAVING New England's bird-haunts of roadside thicket and neglected pastures, and coming to Georgia, with its bright red clay soil, sparse grass, and oak and pine groves that seem scanty and open beside the northern woods, I felt I had left behind all chances of bird-study. I eyed without hope the oak grove next to the home that was to be ours, for had they not told me that there were not even Robins in Georgia, except as they passed through and beyond to lovelier places? But newcomers have much to learn, and before the year was over I realized that my new home was in the path of the great spring and fall migrations, and that even such uncommon birds as the Cape May Warbler did not despise my city woods.

Our home is in the suburbs of the city of Atlanta, in a section opened within the last ten years as a residential district. The homes here have ample grounds, and among them small pieces of the original woods have been left. Such a piece, lying next our home, I adopted as my own. The city clatters by its front line, houses surround it, but within its small recess it is cool and quiet, a safe retreat where Wood Thrush and Catbirds and Cardinals build unmolested, where a Hooded Warbler has raised his family, and where many a migrant rests for an hour. This bit of woods measures 250 feet on the sidewalk and runs back to a depth of 400 feet. On its rear end it touches an open piece of ground planted with ornamental shrubbery. The whole has, fortunately, been neglected, so that honeysuckle, lacing together the brambles and low bushes, has made there almost impenetrable thickets, while young oaks and dogwoods have filled in the spaces between the fine high old oak trees, walnuts, and tulips. If a spring or tiny 'branch' had been in the midst of this spot, no better city bird-home could have been found. But in spite of this lack, I have seen here, within four miles of the city's shopping district, during the last fifteen months, seventy-six varieties of birds.

Of these, eleven have lived here the year round. I should like to think that the same individuals had remained during that time, becoming my permanent neighbors, but such is probably not the case, for the Thrashers that spent Christmas with me very likely raised their families in the foothills of north Georgia, while those whose babies I have been watching this summer will winter close to the Gulf. Be that as it may, I have been able to see, almost every day in the year, the Brown Thrasher, Cardinal, Towhee, English Sparrow, Mockingbird, Flicker, Blue Jay, Tufted Titmouse, Carolina Wren, Red-headed Woodpecker, and very often the Bluebird, who finally, when spring had come, ranged her family of three for my inspection along an old oak limb close to the house.

Next to these faithful, well-loved birds come the three winter residents that my woods have sheltered: one Hermit Thrush, who has run along over the dead leaves ahead of me, showing not fear but a kind of resentment in his

bright black eye, and who left me on March 20; the White-throated Sparrows, who came about November 1, in a great flock, and who made the bare woods cheerful all winter with their 'Peabody' song, and their high-pitched chirp, and who stayed with me until April 25; and the Ruby-crowned Kinglet, whom I found first on Christmas Day, a warm mellow day full of golden sunshine, and who was, from then on until April 24, an almost daily companion, beginning on March 20 to sing his wonderfully melodious and complex little song.

The birds that have come from the South to summer with me and raise their families in my woods are the Hooded Warbler, who reiterated his 'Where in the world *is* he?' from morning till night during late April and early May, the Wood Thrush, most beautiful of the summer singers, the Catbird, Red-eyed Vireo, Orchard Oriole, Crested Flycatcher, and Wood Pewee.

Aside from these twenty-one birds, my guests have been either transients or migrants. Thirty varieties that nest within the state have visited me, sometimes once, sometimes repeatedly. The tiny Carolina Chickadee comes often, the Mourning Dove joins the Wood Thrush in early song, and the Barn Swallow circles at twilight over the oak tops. A Red-shouldered Hawk swooped down one day and in spite of his good reputation for preferring rodents to feathered prey, grabbed one of my Tufted Titmice, and, perching on a high branch, tore him to pieces before my very eyes, throwing the head and feathers down to me as proof of his indifference to my opinions, as well as his contempt for the five Jays that were trying noisily to drive him off. The Downy Woodpecker often comes during the summer and winter and the Field Sparrow has been a visitor during spring and summer.

Occasional visitors have been the Screech Owl, Quail, Summer Tanager, Yellow-billed Cuckoo, Hummingbird, and Blue-gray Gnatcatcher, most alluring of tiny birds, with his dashing ways, angrily snapping bill, and sweet, faint song. 'Brer' Turkey Buzzard has often wheeled overhead, but Jim Crow has come only once. The White-breasted Nuthatch has tried half a dozen trees and left, the Red-cockaded and the Red-bellied Woodpeckers have each made one memorable visit. The Yellow-throated, the White-eyed, and the Warbling Vireos have each spent a week-end with their Red-eyed cousin, who lives with me during the summer, while the Robins, loved of New Englanders, came between February 23 and March 15, in flocks of from twenty-five to fifty, spending the night in my woods, and giving me their hearty, flute-like caroling before they flew away toward the north and northeast. I have seen Robins during the summer in other parts of the city but none built in my woods.

Of the Warblers that nest in Georgia, there have visited me often the Parula (southern variety) and the Yellow-throated, and occasionally the Pine, the Black-throated Green, the Prairie, the Golden-winged and the Blue-winged. I have seen the Black-and-White Warbler three times in April, three times in June after the 11th, and repeatedly in August and September. The Redstart

I have seen three times in April, six times in May, once in June, twice in July, once in August, and repeatedly in September, so that he seems to be a reasonably close neighbor.

Of the migrating birds whose nesting-site lies north of Georgia there have come to my city woods twenty-five kinds. Of the Warblers, the Myrtle, the Yellow, the Worm-eating, the Black-poll, the Maryland Yellow-Throat, the Cape May, the Chestnut-sided, the Canada, the Magnolia, the Black-throated-blue, the Blackburnian, the Palm, the Tennessee, and, in the fall migration, the Ovenbird, making a total of twenty-four Warblers, counting the Hooded Warbler that nested here. And of other migrating birds, aside from Warblers, there have visited me the Goldfinch, the Brown Creeper, the Bronzed Grackle, the Song and Vesper Sparrows, the Junco, the Meadow Lark, the Rose-breasted Grosbeak, the Indigo Bunting, the Pine Siskin, and, perhaps most dramatically, the Cedar Waxwing.

At the rear of my woods is a persimmon tree standing alone, several feet from any other tree. This has seemed the favorite goal of migrating Waxwings. I counted eighty-one in the first flock that I saw, looking like gilded birds in the strong morning sunlight, their musical twitter faintly filling the air, while they sat quietly enough for me to count them three times before they rose suddenly, as one bird, into the air, and wheeled, in a small compact body, away toward the north. After this I saw eleven flocks in the same tree and in the shrubbery nearby during February and March and the first half of April. Had they chosen my persimmon tree as an assembling-place for Georgia-wintering Waxwings, or were they resting during migration from a more southerly point, attracted by the heavy crop of privet berries all about them? Probably the latter, for with the exception of one flock, they were here only a few hours each time.

Since I have begun to write this account of my city birds, a band of negroes has come into my woods and "cleared them up." With axe and brush-fire they have spoiled and civilized this wild, neglected place. I can now nod to my neighbor across the scarred and empty space. I hope she does not notice the lack of enthusiasm in my greeting. Gone are Thrush Thicket, Cardinal Cover and Catbird Glade! Next season I shall have to see how many birds will make me formal calls in the high old oaks.

Factors Contributing to the Destruction of Birds' Nests and Eggs

By IRA N. GABRIELSON, Portland, Oregon

FOR a number of years, I have made it a habit to record the cause of the destruction of birds' nests whenever such cause is positively known. To accumulate any considerable data along this line necessarily requires that one be in a position to visit nests in the same territory at frequent intervals.

During 1914 and 1915 such opportunity was presented to me, and I gathered most of these data at that time. My record now includes fifty nests on which I have been fortunate enough to secure positive data. It will, of course, be understood that a large number of nests were found destroyed which could not be included because of lack of definite records regarding them. For example on one day I discovered eight Brown Thrasher nests—all of which had contained eggs the previous day—destroyed. All were located in gooseberry bushes and had evidently been destroyed by some bird or mammal, as bits of shells were found in the bottom of each nest.

The following list shows the kinds of nests and gives detailed information regarding the destruction of each:

BLUE-WINGED TEAL. July 8, 1907. Webb, Iowa. Cut into by mowing-machine and eggs broken.

BITTERN. July 12, 1909. Webb, Iowa. Five young killed by mowing-machine. Discovered after passage of machine.

SPOTTED SANDPIPER. June 2, 1914. Marshalltown, Iowa. Washed away by flood of June 8,

MOURNING DOVE. May 8, 1910. Sioux City, Iowa. Robbed by boys. May 23, 1910. Sioux City, Iowa. Location of nest unknown to me until I passed close by. The old bird in her fright threw both eggs from the nest as she left.

COOPER'S HAWK. April 30, 1910. Sioux City, Iowa. Nest destroyed by farmer whose chickens the Hawks were getting. I was attempting to secure photographs of the nest and young at the time and on a return trip found them gone. I happened to mention this to a farmer living nearby and he told me he had destroyed the nest.

BLACK-BILLED CUCKOO. June 2, 1914. Marshalltown, Iowa. Two eggs. Filled with mud and water by flood of Iowa River on June 8.

YELLOW-BILLED CUCKOO. June 29, 1914. Marshalltown, Iowa. Saw fox squirrel destroy this nest.

HAIRY WOODPECKER. June 28, 1914. Albion, Iowa. Three young killed by felling of stub for firewood. Nest location unknown until after stub fell.

KINGBIRD. June 23, 1909. Webb, Iowa. Young killed by exposure to storm. Found parent bird on nest afterward, but young dead; nest and young both soaked.

PHOEBE. April 23, 1910. Sioux City, Iowa. Eggs taken and nest torn down by boys. Saw fresh tracks made by boys in mud when I arrived.

WESTERN MEADOWLARK. May 15, 1911. Sioux City, Iowa. Robbed by boys. Found the boys with eggs in their possession shortly after they had taken them. June 5, 1914. Marshalltown, Iowa. Parent bird and seven young found drowned in nest after flood of June 8 subsided. June 5, 1914. Marshalltown, Iowa. Three young. Found drowned after flood of June 8.

RED-WINGED BLACKBIRD. July 21, 1910. Webb, Iowa. Nest cut down by mowing-

machine. May 30, 1914. Marshalltown, Iowa. Robbed by boys. June 8, 1914. Marshalltown, Iowa. One egg. Nest filled with mud by high water. June 8, 1914. Marshalltown, Iowa. Four eggs. Found filled with mud after flood. June 8, 1914. Marshalltown, Iowa. Two eggs. Found filled with mud after flood. June 8, 1914. Marshalltown, Iowa. One egg. Filled with mud by flood.

BOBOLINK. July 9, 1910. Webb, Iowa. Contained nine eggs. Came to nest just in time to see a garter snake swallowing the last eggs. Two lumps, presumably eggs, were visible in its body.

GOLDFINCH. July 23, 1909. Webb, Iowa. Blue Jay discovered eating the eggs.

LARK SPARROW. June 8, 1914. Marshalltown, Iowa. Found on June 4. On June 8 found nest and three eggs washed about 4 feet down the hill and half full of mud.

GRASSHOPPER SPARROW. July 14, 1910. Webb, Iowa. Two eggs. Nest exposed by mowing-machine and bird deserted it.

FIELD SPARROW. June 25, 1914. Marshalltown, Iowa. Two eggs. Bush containing nest cut by mowing-machine. June 25, 1914. Marshalltown, Iowa. Four eggs. Weeds in which it was built cut by mowing machine and eggs thrown out.

WESTERN VESPER SPARROW. July 6, 1920. Portland, Ore. Four eggs. Destroyed by cultivator.

CARDINAL. May 30, 1913. Marshalltown, Iowa. Three eggs. Saw Blue Jay fly from nest and found eggs with a hole in each.

ROSE-BREASTED GROSBEEK. June 6, 1910. Sioux City, Iowa. Robbed by boys. June 24, 1914. Marshalltown, Iowa. Four eggs. Robbed by boys.

RED-EYED VIREO. June 28, 1915. Albion, Iowa. Nest brought in by boy who said he had torn it from its place by running against it before he saw it.

MARYLAND YELLOW-THROAT. June 12, 1909. Webb, Iowa. Three young taken by cat. Cat caught with last one.

BANK SWALLOW. June 8, 1914. Marshalltown, Iowa. A colony of several pairs which I was watching was destroyed by the caving of a bank caused by height of water on June 8.

CHICKADEE. April 23, 1910. Sioux City, Iowa. Nest containing five eggs deserted by parents after the nest had been opened to photograph the eggs.

SHORT-BILLED MARSH WREN. July 28, 1910. Webb, Iowa. Six eggs. Nest with four whole eggs and two broken eggs was found on guards of mowing-machine.

BROWN THRASHER. June 24, 1914. Marshalltown, Iowa. Four eggs. Robbed by boys.

CATBIRD. June 24, 1914. Marshalltown, Iowa. Four eggs. Robbed by boys. June 29, 1914. Marshalltown, Iowa. Two eggs. Nest destroyed by boys. Parent shot, apparently by 22-caliber rifle, and hung on limb near nest. June 11, 1915. Marshalltown, Iowa. Robbed by boys. Aug. 7, 1916. Springfield, Mass. Adult and three young killed by cats.

WOOD THRUSH. May 30, 1914. Marshalltown, Iowa. Robbed by boys.

ROBIN. June 4, 1909. Webb, Iowa. Four young eaten by cat. Cat seen to catch last two. June 23, 1909. Webb, Iowa. Blown from tree by severe storm. Nestlings killed just after hatching. June 24, 1914. Marshalltown, Iowa. English Sparrow observed to enter nest and deliberately drop six eggs over edge of nest, one at a time. June 24, 1914. Marshalltown, Iowa. Four eggs. Robbed by boys. May 11, 1916. Fairfield, Conn. Starling seen destroying nest. May 18, 1916. Norwalk, Conn. Nest destroyed by Starling.

BLUEBIRD. June 8, 1914. Marshalltown, Iowa. Four eggs. Located in fence-post. Filled with mud by flood. April 18, 1916. Norwalk, Conn. Nest destroyed by Starlings.

It might be said in explanation that the flood of June 8, 1914, on the Iowa River was caused by very heavy rains. Such floods are not uncommon during the spring months, though usually of much less extent than this one. The nests listed were mostly those with whose location I was familiar before the

flood and able to visit afterwards. Of course, many thousands of nests were destroyed in the valley at this time. I found sixteen Red-winged Blackbirds' eggs in one pile of drift, none of which could have come from the nests listed, as they were a mile or more upstream.

In the case of nests listed as destroyed by boys, it might be well to say that the boys were either caught in the act, or fresh tracks and marks of climbing in the trees were noted which were considered good evidence. Few nests are included whose location was not known before, and as the territory was covered every day, such evidence was usually fairly fresh. On June 24, 1914, when five nests were listed as destroyed by boys, a band of four boys were trailed through a little strip of timber and caught in the act of robbing the last nest. The other eggs were in their possession.

The following summary of the data shows the distribution of the factors involved in the destruction of these 50 nests:

Through human agency:

Nests robbed or destroyed by boys	12
Destroyed by mowing-machine	7
Destroyed by cultivator	1
Destroyed by farmer, purposely	1
Nest deserted by parents after human interference.....	1
Nest destroyed by cutting of stump on which located	1
Nest destroyed accidentally by boy brushing against it.....	1
Total through human agency	24

By cats and other natural enemies:

Young eaten by cats	3
Eggs eaten by Blue Jays	3
Eggs eaten by snake	1
Nests destroyed by Starlings	3
Eggs eaten by fox squirrel	1
Nest destroyed by English Sparrow	1
Total by natural enemies	12

By storm and flood:

Destroyed by wind and rain	2
Destroyed by flood	11
Total by elements	13

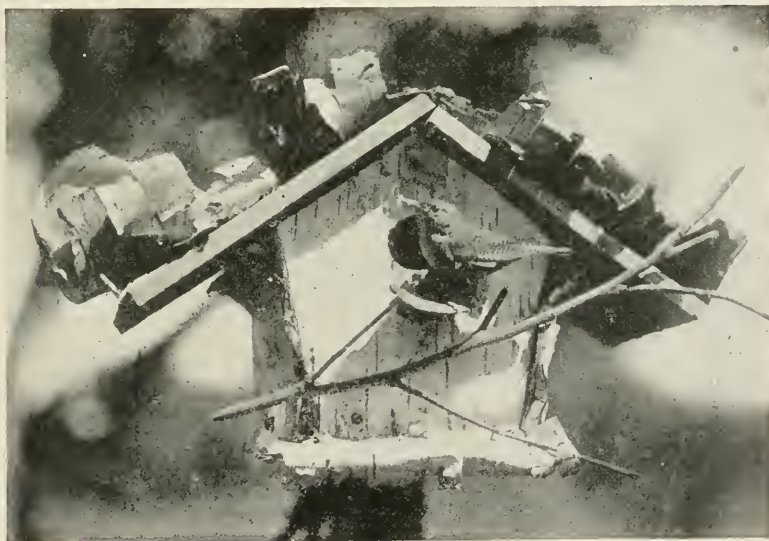
<i>Accidental destruction by bird itself</i>	1
TOTAL	50

It would obviously be absurd to attempt to draw from so little data any definite conclusions regarding the part played by various agents of destruction. Search of literature and correspondence would doubtless reveal a mass of data from which fairly definite conclusions could be drawn and such work is a possibility of the future.

It is obvious that the elements always have been and always will be a great factor in holding in check the increase of bird population. No effort on the part of man can seriously affect this item. It is equally true that there are many birds and animals not listed among the agents of bird-nest destruction that play their part to as great an extent as those included, or even greater.

The most significant thing, however, is the high proportion—almost half—destroyed through human agency. While from the standpoint of bird protectionists this may be discouraging, paradoxical as it may seem, it is also most encouraging. While it is the largest factor, it is possible of control to some extent. The boy problem, is of course, one of education. The schools, due largely to the Audubon Societies, are taking up such work in increasing numbers and certainly are exercising a repressive effect in this regard.

The one other large factor is the use of agricultural machinery. The loss in bird-life from the use of machinery has been and will continue to be severe, but personal experience and talks with farmers who appreciate the value of bird-life lead me to believe that this damage can be greatly reduced by proper precautions. In the cornfields, I have managed to dodge many a Killdeer and Horned Lark nest by keeping my eyes open, and I know many farmers who follow the same practice.



HOUSE WREN ABOUT TO FEED YOUNG
L. F. Brehmer, Rutland, Vt.

Birds Bathing

By E. RAYMOND DRIVER, Santa Barbara, Calif.

I HAVE noted with a great amount of interest the answers published in BIRD-LORE to Mr. Ernest Thompson Seton's question "Why do birds bathe?"

For the last two years it has been a daily pleasure to observe the birds bathing in six baths very close to my house. These bathing-places range from the ordinary cement pillar bath to a 10-foot pool, are used many times each day, but I will still refrain from attempting to answer Mr. Seton's question even after some thirty-odd years of almost constant field observation. I think, however, I can make some contributions to this subject.

While seated on my front porch watching two pools for bathers I noted a movement in the acacia tree which overhangs the lower pool. Turning my binoculars toward the spot I discovered that the movement was caused by a young, almost fully grown Pallid Wren-Tit. Hardly a moment passed before a Rufous-crowned Sparrow (I wish all bird students and bird-lovers knew this grand little fellow) entered the water to give himself a real *soaker*, as they do, and then up in that acacia I saw a 'bath' such as I never saw before and probably never will again.

That Wren-Tit went through every motion of a real water-bath, all the time with an eye apparently on the Rufous-crowned. When the real bath was over, the Wren-Tit again went through all the necessary details of putting its plumage in order just as if it had actually bathed. Now comes the part which pleased me beyond expression.

Fluffing itself out like a round ball, this little mite nestled down close to the limb, slowly, with many upward jerks the little head at last bent lower and lower until it rested on its breast. Asleep? Yes, just like grandfather goes to sleep reading his paper, but that impudent, noisy scamp Mr. Titmouse was evidently watching with me, for out of the big live oak about 20 feet away came a sharp, shrill note; up bobbed that sleepy head like a flash, looking about to see who caused it or why the awakening. The same gradual lowering of the sleepy head again. This same performance was repeated five times. Then little Wren-Tit became disquieted with the Titmouse jokes, gave itself a good shake, and flew away to a quieter spot.

All the following were seen at the same time either bathing or at the edge of the water apparently waiting their turn: Black-headed Grosbeak, Western Tanager, Lazuli Bunting, Western Yellow-throat, Black-throated Gray, Yellow Warbler, Spurred Towhee, and a Mourning Dove came for a drink.

On a very hot day last summer two Doves, after getting their drink, flew about 25 feet to a bare spot on the ground in the full sunshine, each picked out a small hump or hummock of earth, laid themselves out perfectly flat, extended neck and both wings fully and remained in this position for at least fifteen minutes. It was a real sun-bath.



WESTERN MOCKINGBIRD AT UPPER POOL

The following list will give some idea of what birds have been seen bathing in my pools or baths:

"Soakers:" Western Mockingbird, California Towhee (both get so wet they can fly only a few feet), Spurred Towhee, California Jay, Arizona Hooded Oriole, Bullock's Oriole, House Finch, California Purple Finch, Western Lark Sparrow, Gambel's Sparrow, Nuttall's Sparrow, Golden-crowned Sparrow, White-crowned Sparrow, Western Chipping Sparrow, Rufous-crowned Sparrow, Black-headed Grosbeak, Western Robin.

"Dippers:" Green-backed Goldfinch, Lawrence's Goldfinch, Louisiana Tanager, Phainopepla, Cassin's Vireo, Hutton's Vireo, Warbling Vireo, Least Vireo (all the Vireos bathe on the wing), Bush-Tit, Calaveras Warbler, Lutescent Warbler, Dusky Warbler, Yellow Warbler, Audubon's Warbler, Black-throated Gray Warbler, Western Yellow-throat, Pilcolated Warbler, Golden Pileolated Warbler, Parkman's Wren, Wren-Tit, Russet-backed Thrush, Alaska Hermit Thrush.

Bathe in wet foliage either from showers, heavy dew, or 'sprinklers': Black-chinned Hummer, Anna's Hummer, Rufous Hummer, Allen's Hummer, Cassin's Vireo, Hutton's Vireo, Warbling Vireo, Least Vireo, Bush-Tit (sometimes at least forty in one bush), Western Chipping Sparrow, Western Lark Sparrow, Spurred Towhee, Pallid Wren-Tit.

BIRD-BATH NOTES

BIRD-BATH AND DRINKING-POOL FOR 25 CENTS

The writer has just finished a good, practical concrete bird-bath and drinking pool, 24 x 54 inches, and about 4 inches deep in the center, at a total cost of 25 cents, this being the cost of 25 pounds of cement. A shady spot at the edge of the lawn opposite our kitchen window was selected for the site, and a rectangular patch of sod of above dimensions was removed and excavation was made, beginning with a depth of about 5 inches in the center and gradually sloping up to all sides, leaving a smooth concave hollow of firm soil. About one-half wheelbarrow full of fine gravel, which had been left over from a neighboring building job, was hauled home in our car. The gravel and cement were mixed together in an old dry-goods box and enough water added to thoroughly moisten the mixture to a rather stiff consistency. This was then shovelled into the hollow and worked over with the shovel to an average thickness of about 2 inches, finishing the inner surface nice and smooth and leaving the rim trimmed off squarely and flush with the surrounding lawn. It holds about five gallons of water; the edge of the water is shallow, gradually deepening toward the center and thus affords a drinking-place and bath for birds of all sizes. The water can be freshened or replenished through the garden hose as often as desired. While this arrangement is not as ornate as the manufactured article, it looks well, is practical and the low cost should make its use common. The whole operation took only an hour's time, and when we say that this was the first concreting job we ever attempted it can readily be seen that almost anyone can undertake it. To attract birds to your home it is necessary to provide water, as there must be times when birds have trouble in finding convenient watering-places, and we hope that other bird-lovers will provide similar inexpensive watering-places on their premises.—EDWARD HELLSTERN, *Fort Morgan, Colo.*, July 1, 1921.

TWO UNUSUAL CHICKADEE BATHS

The notes on bird-baths in the May-June, 1921 number of BIRD-LORE recall two Chickadee baths which the writer saw some years ago.

The first was in the early spring of 1903 at Greenland, N. H. The Winnicut River was swollen by melted snow and covered with cakes of floating ice. One cake drifted slowly past in an eddy. Just as it came near, one of a flock of Chickadees flew to the cake and hopped to the edge. There he splashed and spattered the ice-cold water, dressing his feathers between splashes. He was still enjoying his bath when the ice-cake drifted out of sight.

The second bath was seen several winters later at Tilton, N. H. In a back yard was a large apple tree in which a semi-albino Robin and its mate had nested the season before. Every day a little party of Chickadees came to a food-shelf near the tree. One day a Chickadee flew to the old Robin's nest and rolled about apparently taking a dust-bath in the crumbled mud walls. This Chickadee or another one was seen taking this bath several times in the course of the winter.

In the summer of 1921, the writer got his drinking water from a spring in a spruce and pine grove. Several times he has noted the birds bathing in the spring. In each case the bird stood in the spring and splashed until thoroughly wet. The species were White-throated Sparrows, Goldfinches, Hermit Thrushes Bay-breasted Warblers, Black-throated Green Warblers, and Chickadees.—EDWARD H. PERKINS, *Colby College, Waterville, Maine.*

A STONE-RIMMED TUB

A bird-bath made by a circle of stones cemented together on a huge rock has besides the usual visitors, a Red-eyed Vireo who sits on one side, then plunges through to the opposite rim, over and over. Towhees take a good soak, often four or five in succession, then have a sun-bath on the lawn. Three male Scarlet Tanagers and one female at one time, all soaked and splashed thoroughly. In August the males were in molting plumage. Song Sparrows, Wiens, Chippies, Robins, Wood Thrushes, Catbirds, Flickers, beside the others, bathe daily, during June and July. The bath always had one or more birds in it, but during August it is seldom used.

On May 22, 1917, sitting 3 feet from a shallow, swift brook, I saw the following Warblers bathe: 1 Blackpoll; 10 Black-throated Greens; many Maryland Yellow-throats; 5 Chestnutsided; many Blackburnians; 4 Baybreasted, 1 pair Black-throated Blues; many Myrtles; many Canadians, and Magnolias; and Redstarts. Most of them dipped and all cleaned their feathers in nearby trees. It was a wonderful hour.

In the interior of Nova Scotia I have seen many Parulas dip in deep water from the overhanging twigs of the bushes and after a thorough preening, take a sun-bath—MARY C. NISBET, *Irvington-on-Hudson, N. Y.*

DUST BATHERS

In Ernest Thompson Seton's article "Why Do Birds Bathe?" published in the May-June number of BIRD-LORE, I notice this statement, "The perching birds do not take the dust-bath except the English Sparrow, the Thrasher, the Song Sparrow, and the Wren. (I am in hopes that we shall add greatly to this list.)" In regard to this, I will say that I have seen a Chipping Sparrow dust itself in the road near my home.

I will also call your attention to a statement made on page 20 of 'Bird-World,' a bird book for children written by J. H. Stickney and Ralph Hoffman

and published by Ginn Company in 1902: "If you are walking or riding on a country road well-lined with shrubs and trees, I should be surprised if you do not before summer ends, looking up, see the male Indigo bird—a little blue canary you will think—on the outer end of a high twig; or, once in a summer, you may come upon the dust-colored mother dusting herself as mother-hens do, and coming from her bath feeling as clean as you do coming from yours."—ETHEL M. WEYMOUTH, *North Berwick, Maine*.



BLUEBIRD AT NEST

Photographed by Joseph Pollock, Carman, N. Y.

Notes from Field and Study

The Advance Guard

For several days prior to February 26 the weather had been very mild and soft. A few Bluebirds, Robins, and Meadowlarks were in evidence, and Ducks were seen winging their way north. As the supply of food was not yet exhausted, the flocks of Bohemian and Cedar Waxwings that have adorned our campus this winter were not influenced by the balmy weather.

Sunday opened with a warm drizzle which turned to a light snow in the late afternoon and was the forerunner of about three days of zero weather with real snow and heavy north and northwest winds. Sunday evening, at about 9.10, my son, a fifteen-year old Scout, reported a decided movement of birds above the town. The calls were distinctly heard and seemed to cover quite an area. It was too dark to decide on the direction of their flight, but they must have been above Ames for from twenty minutes to half an hour because there was time to phone to several interested persons, all of whom went out and were able to hear the commotion.

Could it be that this was a band of adventurous forerunners who were driven back by the storm, were confused by the lights, and so flew back and forth over Ames for a time before going on south. —MRS. F. L. BATTELL, Ames, Iowa.

An Unusual Gathering of Migrants

April 1, 1922, was the third day of an intermittent snow and rain storm. There were 5 inches of snow on the ground and more falling heavily. The Hudson River at Waterford, N. Y., had overflowed its banks and backed up into a 10-acre, level, corn-stubble field, flooding a third of it. In this small field was the most intense congestion of early migrants I have ever witnessed here, there being over 2,000 birds, at the most conservative estimate, and of twenty species. This sudden storm came after the fields had been bare for some time. but the birds did

not appear to suffer and managed to glean a living until three days later, the fields were again bare.

A list of the birds follows:

Juncos were the most abundant—500 in the field and over 1,300 seen on a 5-mile walk (usually in flocks of 25 to 100); 500 Crows (normally 10 to 20 in flock); 300 Horned Larks (usually flocks of 20 to 100), 10 Prairie Horned Larks, 20 Pipits, 15 Herring Gulls, 200 Red-winged Blackbirds, 10 Rusty Blackbirds, 200 Grackles, 100 Starlings, 25 Meadowlarks, 15 Killdeer, 50 Robins, 10 Bluebirds, 1 Sparrow Hawk, 6 Black Ducks, 150 Song Sparrows, 100 Tree Sparrows, 20 Savanna Sparrows, 15 Vesper Sparrows. There were probably twice as many Sparrows but these were closely counted as were all the others. At the end of the third day normalcy was reached, with 6 species present and about 100 individuals. —EDGAR BEDELL, Waterford, N. Y.

The Birds of an Acre

I append a list of birds found nesting on our acre or so of lawn. This lawn is planted with spruces, pines, maples, walnuts, locusts, cherry trees, oak trees, and many others. In addition there are many varieties of shrubs. Our place is in the heart of some of the highest ranges of the southern Appalachians, at over 2,800 feet altitude. The list follows:

Robin, Wood Thrush, Bluebird, Bob-White, Chickadee, Chipping Sparrow, Song Sparrow, Least Flycatcher, Catbird, Chimney Swift, Phoebe, Acadian Flycatcher, Baltimore Oriole, Bewick's Wren, Cedar Waxwing.

In addition to the foregoing the following have been seen during the spring and summer months. Many of these also nest on the place, but we have not found their nest.

Red-eyed Vireo, Cardinal, Wood Pewee, American Woodcock, Louisiana Water-Thrush, Ruby-throated Hummingbird, Yellow Warbler, Goldfinch, Blue-Gray Gnat-

catcher, Screech Owl, Yellow-breasted Chat, Maryland Yellow-throat, Brown Thrasher, Tufted Titmouse, Flicker, Carolina Wren.—
M. A. BOGGS, *Waynesville, N. C.*

Birds and Salt

In reference to letters about 'Birds and Salt' in previous issues, I should say that in *moderate quantity* salt would be good for any bird, but too much would kill it. I have not a doubt that the Pine Siskins which Mr. Kelso speaks of died from eating too much of

for birds in the open; every new bird coming up would help itself too freely, but it may be safe to supply rock salt. The dampness collected by the salt settles in the depressions of the lump, drawing the salt. I should think for birds it should be kept under cover to keep rain and dew from freeing any excessive portion. The article by Esther Reeks shows that this experiment seems safe. But if for any reason most of the birds using the salt should cease doing so for a time would the supply be too much for the remaining few? There was never any trouble with the



AMERICAN BITTERN

the spilled salt before the strychnine was dropped.

I have raised Pigeons in captivity. Salt was kept before them continuously. If the box should be found empty and was filled at once, dead birds would result; but throw a little on the floor where all can get at it, and they crowd around it, pushing each other away in their hurry to eat it, and no one got an overdose. It is necessary to repeat this several days, or until they do not rush for it, before it is safe to fill the box.

Of course, this method could not be used

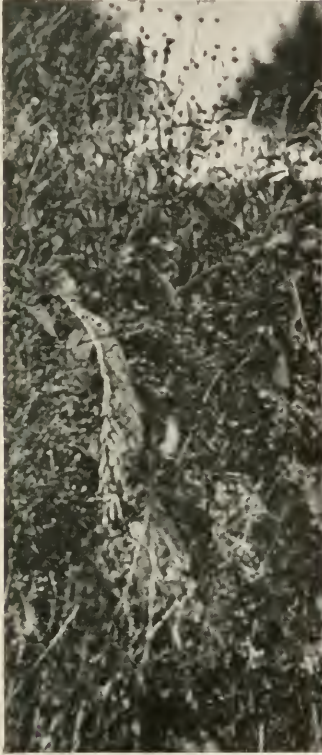
Pigeons in this respect, but might there be with smaller birds? I should think there would be little danger, as when birds once have a feeding-spot (weeds or whatever) they visit it regularly. Nature supplies salt in limited quantity.—ELIZABETH P. STYER, *Concordville, Pa.*

An Experience with an American Bittern

While following a small creek near Ypsilanti, Mich., on October 6, 1921, an American Bittern stepped from the stream-bed before

me and walked up the bank opposite me to a growth of thistles and other pasture weeds, where it suddenly struck the erect, motionless, slender body attitude so often taken by Bitterns when danger threatens and which so effectively camouflages them. When approached the bird remained quiet till I

trips, with a loaded reflecting camera, made it possible to get a dozen good pictures of this Bittern, some giving me a good record of its concealing behavior and all making important additions to my wild-life negative collection.—T. L. HANKINSON, *State Normal College, Ypsilanti, Mich.*



AMERICAN BITTERN POSING

was within a dozen or so feet of it; then it relaxed and started to walk along the creek bank, always keeping at least this distance ahead of me and making use of every weed-patch for another effort to elude me with a quickly assumed, stationary posture like the one described. Once in a patch of giant ragweed it very effectively and remarkably eradicated itself, although it was little eclipsed by plant parts.

The day was quiet and sunny and it was near noon. These conditions, with the fact that I was armed, as I usually am on field

Bald Eagles on the Hudson

For over forty years, Andrew Templeton has watched the winter visits of the Bald Eagles to the Hudson River at Newburgh and Beacon, where the ferry between these cities keeps the water free from ice in the coldest days. When the days begin to soften, great fields of ice break off with the changing tides, and these the ferry cuts into small blocks and eventually a big open space is formed where the Gulls, Mergansers and other Ducks gather and wait the breaking up of the ice. Every year that these

conditions have prevailed, during the mild days of winter, a pair of Bald Eagles have come to the Hudson River and remained in the ferry pathway for several days, attracting much attention. It was some surprise to me in passing over on the ferry Friday, February 24, to find eight Bald Eagles on the ice—six mature birds and two immature. Crows appeared like chickens beside their hens, but later, when we had a pair of eight-power glasses on the birds, we were unable to discover that they found any food, although Mergansers were diving and splashing not far away. The eight birds were here for one day only but the pair now here have been leaving every evening before dusk for the Highlands south, flying toward Storm King Mountain. The two mature Bald Eagles are yet with us, but the gathering of eight birds on the river seems of enough importance to me to report to BIRD-LORE, for it seems as if the protection of these birds was now bearing fruit.—FRANCIS B. ROBINSON, *Newburgh, N. Y.*, February 27, 1922.

Snowy Owl in New York

Early on the morning of December 8, 1921, after I had taken a supply of food out to my feeding-station for the birds' breakfast, I saw our neighbor's dog run out into the tall grass in a meadow just across the road from my home. To my great surprise, a large Snowy Owl arose from the ground and with slow, heavy flight flew directly into the dooryard and within about 6 feet from where I stood. I got a splendid view of him, and being my first record, I was delighted. The plumage was slightly mottled with brown on the breast and underparts, and the brown markings were quite conspicuous about the head and neck. The whole upper parts were snowy white, including wings and tail.

The Snowy Owl is very rare here, and I am told that this is the first specimen that has been seen here for years. The last record that can be remembered by the oldest inhabitants was during the severe winter of 1883, when one was killed near here in the month of February.—JULIA MILLER, *Hornell, N. Y.*

A Captive Hummer

Mr. Ralph E. Danforth's account of the Hummingbird tangled in cobwebs (BIRD-LORE, September-October, 1921) interested me because I have seen the same thing.

My house had been closed for a few days. I returned one afternoon and, at intervals until dark, heard a faint metallic squeak. Thinking it something jarred by the wind, I paid no attention to it. Next morning I heard the same sound, louder and more insistent, and at once realized that some living thing was calling for help. After some searching, I found, on the wood-shed floor, a Hummingbird, bound fast in cobwebs, seeming quite exhausted, I thought nearly dead. I worked over him for two hours, clearing away the cobwebs very carefully because he cried if I pulled too hard.

I put water before him and he fluttered or tumbled into the saucer, I could not tell whether by accident or design. I could not see that he drank. Then I placed before him a large trumpet creeper flower. That he attacked eagerly, sucked at it for some time, and plainly felt much refreshed. When he could fly about the room, I let him go.

One little incident pleased me; whenever I left him and went out of sight, he cried until I went back to him, then was quiet. So quickly that atom of life recognized a friend.

I would like to know how long a little bird can live without food or water. He must have lain on the floor nearly twenty-four hours at least and it may have been much longer.—ADELINE WILLIS, *Naples, Maine*, January 12, 1922.

A One-legged Bather

Have any of your readers ever had a one-legged Grackle in their bird-baths? Our bath is a combination of a cement top bought in a shop, fitted over a bronze vase such as our grandmothers had in their front yards, with purplish-pink petunias growing in them. It looks attractive standing between two old apple trees which have grown up to the third story windows of our house. The branches form good drying places after the baths.

Several years ago I had the amusing and pathetic sight of a one-legged Grackle trying to take a bath. Her mate had a splendid splash, but poor 'One-leg' would crouch down, balancing with one wing partly spread, then, just as she touched the water, she felt insecure and stood up again. I took a snap-shot of her which I had enlarged.

In May, 1921, who should appear but 'One-leg' and her careful mate! On account of the frosts I had not put out the bath so early and, disappointed, my friends went away hoping for "2 rooms and a bath" in some other locality.

However, I am not lonely, for Robins, Sparrows—Song, English, and Chipping, Starlings, a Wood Thrush and a Rose-breasted Grosbeak have quenched their thirst or bathed near our dining-room window.—E. H. BOWLES, *Springfield, Mass.*

Evening Grosbeaks in Pennsylvania

It may be of interest to readers of BIRD-LORE to know that Evening Grosbeaks have been observed in this section—9 miles south-east of Harrisburg—it being the first time, so far as I can ascertain, that these birds have been reported here! Two were seen on February 18 and 19 feeding on the seed of the box elders which line the drive through the grounds of a home on the edge of the town.—MABEL H. NISSLEY, *Hummels-town, Pa.*

Evening Grosbeaks in Iowa

Sunday morning, February 26, a phone call told me that two pair of 'Canadian Grosbeaks' were in a tree in front of the M. F. McGhan home on Mechanic Street. Mr. Tuttle and I hurried over there, and before we reached them I could see with my field-glasses four beautiful Evening Grosbeaks. It was my first personal experience, and I have kept a record of the birds of this vicinity since 1908.

The only other records for Osage, are: April 23, 1909. My son Donald came in from school, all out of breath, saying that he had seen a bird that was "all yellow and black and white;" May 23, 1910, and April

13, 1916 when Mrs. W. H. Salisbury saw them in the northern part of town. A flock of twelve Evening Grosbeaks were seen January 24, 25, and 26, in New Hampton, Iowa, about 50 miles southeast of Osage, and this was their first record there since 1916.—MRS. F. MAY TUTTLE, *Osage, Iowa.*

Evening Grosbeaks at Waterford, N. Y.

On March 8, 1922, a flock of four male and eight female Evening Grosbeaks were found feeding on sunflower heads and giant ragweed along the bank of the Hudson River, at Waterford, N. Y. One female hung to the sunflower heads, upside down, like a Chickadee. The only notes uttered were Starling-like, metallic, 'zee, zee, zee, zee,' and often only a single 'zee.'—EDGAR BEDELL, *Waterford, N. Y.*

Martins vs. Tree Swallows

In 1919, in western Maine, I built and erected a Martin-house of eight apartments. During that, and the following summer Tree Swallows took possession of it for the season and reared their broods. Late in the summer of 1920, Martins made a brief inspection of the premises. In 1921, two pairs of Martins appeared but were driven away by the Swallows (who were already brooding in the house), assisted by those self-constituted mounted police, the Kingbirds. Late in June, however, the Martins returned—three pairs of them. For four days the battle raged without a decision. Between engagements the participants would always retreat to the same spots, swapping recriminations while gaining their breath and deciding the next move. Finally, when both sides had experienced enough of warfare, articles of peace were signed and three pairs of Martins occupied the house with one pair of Swallows, all rearing broods under conditions of tolerance, if not actual intimacy.—F. D. KNIGHT, *New Britain, Conn.*

A Cliff Swallow Colony

I am sending you a picture of my barn which has 300 Cliff Swallow nests. I put up three shelves under their eaves and the Swallows have built their nests on, above,

and below these shelves. This picture shows 230 of the nests, and the remaining 70 are on the sides of the barn. There are at least 50 more Cliff Swallows' nests on my other buildings. I have a dozen Barn Swallows' nests in one building. Each fall I cover these nests to protect them from Owls, Sparrows, and Woodpeckers, and remove these covers in the spring when the Swallows return.



A CLIFF SWALLOW COLONY

Last spring I cleaned and hung up fifty gourds and had nine box houses for House Wrens. This fall practically each one had a nest in it. I even placed some of the gourds on the porches and the Wrens chose this location as readily as any other. The Wrens seem to prefer the dipper gourds to the box houses.

I also had Bronzed Grackles, Robins, Mourning Doves, and Brown Thrashers, nesting in bracket boxes which I placed in the trees.

I am sixty-four years old, and I enjoy having and watching these birds, some of which are not very common in this locality, each season.—RASMUS CHRISTENSEN, *Newark, Neb.*

A Queer Mockingbird

In 'Notes from Field and Study' for July-August BIRD-LORE, 1920, I gave an account of a Mockingbird which, in the summer of 1919, for several successive days, at the same place in its medley, imitated in a definite order several members of the Flycatcher family. On July 1, 1920, I heard the same medley with the Flycatcher notes in the same order. Evidently the same bird was

the songster and was especially fond of this number of his repertory. I did not hear this song again after this day and am unable to say whether the bird disappeared or merely changed his tune. I listened often in the summer of 1921 for the renewal of this song, but, though many Mockingbirds sang, none gave the Flycatcher program.—GORDON WILSON, *Bowling Green, Ky.*

Bicknell's Thrush in Maine

Bicknell's Thrush, the southern form of the Gray-cheeked Thrush, is known to occur in the higher portions of the White Mountains in New Hampshire and in several places in Nova Scotia. Between lie the mountains of Northern Maine. Several peaks in this region rise above the tree-level and carry a well-developed Hudsonian flora. These peaks form ideal Bicknell country and there are unconfirmed reports of the occurrence of the species, yet as far as the writer knows no specimen of the bird has been taken in the state. The purpose of this note is to point out this lack of a record of a bird which should be common in suitable localities and to add a new location where the bird has been 'seen.'

Mount Bigelow rises from between the Carrabassett and Dead Rivers to the height of 2,600 feet above the valley of the Dead River, or 3,800 feet above sea-level. The lower slopes of the mountain are covered with hardwood, mainly beech. As one ascends, this is replaced by a birch and hemlock forest with a thick undergrowth of ferns and white-wood sorrel. At still higher levels spruce and balsam fir become dominant. Finally there is the summit area above the scrub spruce where the characteristic vegetation consists of mountain cranberry, alpine bearberry, crowberry, Greenland sandwort, and scrub birch.

On July 13, 1921, Mr. A. S. Pope and the writer climbed the mountain from the Dead River side. Just as we came out of the scrub spruce at its upper edge a Thrush called. The bird was discovered on a spruce top where it was joined by another. The call-notes of these birds were different from those of the Olive-backs and Hermits which were common in the lower woods. A little later a

third bird was seen on the bare rocks nearer the summit. Although wild he was examined in a good light at a moderate distance with 8-power binoculars. The sides of the breast were very light and showed no buff. The call-notes were the same as those of the two birds seen lower down. The writer is well acquainted with our other Thrushes and has seen the Bicknell's during migration. In this case there was an excellent opportunity to compare the call-notes of this Thrush with those of the Hermit and Olive-backed. Both Mr. Pope and the writer believe the bird to be Bicknell's Thrush.

and the songs of White-throated Sparrows and Yellow-bellied Flycatchers. Apparently the song season was over at these high altitudes. The thickness of the scrub made it impossible to locate the birds unless they were calling. In 1922 the writer hopes to make a trip to this region earlier in the season.—EDWARD H. PERKINS, *Colby College, Waterville, Maine.*

A Robin's Nest

The Robin shown in this picture is one of a pair that tried to build their first nest where this one is placed. After they had



ROBIN AT NEST

Photographed by R. H. Jacobs, Brockton, Mass.

On August 1, Mr. Pope and the writer climbed the mountain again, this time accompanied by Dr. Glover S. Allen of the Boston Society of Natural History. Two nights were spent camping on the mountain. The weather was cold and part of the time very windy. We saw or heard nothing of Bicknell's or any other Thrush on the mountain top. Even the Olive-backs of the lower forest were silent. The only bird-notes heard were the calls of Kinglets, Siskins, Juncos, Myrtle Warblers, and Broad-winged Hawks

been working two days, a wind-storm destroyed the results of their labors and they went to another tree and built a new nest. Meanwhile, I put up the shelter which is seen in the picture. After the young had left the first nest, the birds came back to the exact spot where they had suffered disaster and built a nest for the second brood within a foot of the shelter. The photograph was made July 1, and the following day the young were pushed from the nest.—J. R. W. JACOBS, *Brockton, Mass.*

Robin and Snake

On page 304 of your issue of November-December, 1921, appears a letter from Rear Admiral W. A. Marshall, (retired) of Jamestown, R. I., describing the actions of a Robin with a snake.

Some years ago my wife and I were having a picnic supper in the woods near town when we noticed a Robin a short distance down the path acting in an unusual manner. We went closer to see what it was doing and found that it had a young garter snake about 13 or 14 inches long, at which it was pecking vigorously. The snake was not dead but it had been so roughly handled that it was quite sluggish and was only able to make feeble efforts to get away.

The Robin seemed to be trying to pick up the snake and was so intent upon its job that it paid no attention to us, although we stood for a long time within 15 feet of it. Finally, after repeated efforts, it managed to get a good hold on the snake and flew off with it for a distance of about 75 feet to a post on which was seated one of its young Robins, and endeavored to feed the snake to it. Of course, the baby was unable to handle the snake and it was dropped in the long grass. The old Robin immediately dropped down too and recommenced its efforts to pick it up. We drew too close and frightened the young bird so that it flew to a nearby tree, where, after about ten minutes' work, the old bird, having again secured a firm hold on the snake, flew and once more tried to get its baby to swallow what it seemed to think was a fine large meal. The snake was once more dropped and this time the Robin flew away and evidently gave it up.

I have described this experience to a number of bird observers and none of them has ever seen anything similar. In connection with the experience of Rear Admiral Marshall it may prove of interest to your readers.—FRANKLIN GRAY MCINTOSH, *Franklin, Pa.*

Bluebird History

For many years we have had several bird-houses out, and with the exception of one year, Bluebirds have always appropriated

one. They have had a few hard experiences, once being robbed of their eggs. Always, and especially since that time, they have been very jealous of the presence of any kind of bird that uses a hole or box for nesting. They do not allow Downy Woodpeckers, Sapsuckers, or other Bluebirds in their tree, and they have persistently driven Wrens and Tree Swallows away from a house on a pole, which stands 4 to 5 rods from their tree, and in sight from it.

One year, after raising one brood in their apple tree as usual, they seemed very undecided whether to use it for the second brood, or to use a box that was fastened to an elm, on the other side of our house, and out of sight of their apple tree home. With much enthusiastic conversation and wing-waving, they examined first one box and then the other. This went on for many days.

During this time, a House Wren tried to visit the house on the pole, but Bluebird dashed at him like a fury, and Wren left in haste. This was on June 18. After a while the Bluebird affairs quieted, and, being busy, I took no particular note of their actions, except that I saw that a long straw was sticking out of the door of the elm box, and another out of the apple tree box. This seemed a bit strange, as Bluebirds usually tuck in their nests neatly.

On July 14, my notes record, "The Bluebirds have young, old enough to be heard, in the elm box, but continue frequent visits to the first home in the apple tree."

July 16, I wrote: "This morning, the Bluebirds had a surprise for me. I heard baby voices in the apple tree box, and the male bird came out and went away with a sac. A little later, we heard little voices (as we have for two days), in the box on the elm. The female was at that box, and the male on our roof, not far away. The parents each feed the young in each box, though one sometimes goes to one box several times in succession. I can see but one male and one female. The voices in the elm sound a bit stronger than those in the apple tree."

At dusk, on July 18, the male had a tussle with another male Bluebird and drove him away. This was near the elm box. I

did not know when this box was deserted by the young, but I knew on July 28 that those in the apple tree box had left.

On July 30, the male had another fight with one of his own kind, while the female looked on, near the apple tree box, and again drove him away. I never have seen more than one female here.

I do not know how many young were in each box, as I never disturbed them, and did not see them leave, but I heard at least two voices in each box.

The year before, the House Wren nested across the street, and used to visit the Bluebird's house, much to their displeasure.

After their young were gone, the Wren delighted to explore their home.

Perhaps it is not lawful to think that the Bluebirds felt that they could guard the pole box from tenants, as it was in sight, but were doubtful if they could so care for the elm box, and hence decided to occupy both that and their old home, but that seems the natural conclusion.

The next spring, both boxes were visited by one pair of Bluebirds, but early in April, a pair of English Sparrows planned to use the elm box, so I closed the door; and the Bluebirds used the apple tree box.—ELIZA F. MILLER, *Bethel, Vt.*

THE SEASON

XXXI. February 15 to April 15, 1922

BOSTON REGION.—Winter conditions persisted through February, but on March 6, a beautiful spring-like day, with "brown furrow'd fields reappearing," the Song Sparrows began to sing and the migration was under way.

During the following ten days the first group of land-birds entered this region, Bronzed Grackles in countless hundreds being especially prominent, Red-winged and Rusty Blackbirds in normal numbers. The Song Sparrow, a migrant which is usually tied for first place with the Bluebird, arrived a week in advance this year and had flooded the countryside before the first Bluebird had appeared, a very rare occurrence. Bluebirds, indeed, are still (April 15) comparatively uncommon.

Mr. Floyd's observations, made with Dr. John B. May, from the southern side of Cape Cod in the second week of March, indicate the presence of large numbers of water-birds. He lists over a thousand Scoters (the three species) migrating, Loons and Old Squaws "very abundant," and 100 Brant on March 10, 1,000 on March 11 and 12 (the Brant and Scoters at Edgartown, Mass.).

The migration of land-birds thus far has shown the following variation from the average: Bluebirds, as mentioned above, are not breeding here in full numbers; Cedar

Waxwings are apparently absent (no February flight was noted); both the Ruby-crowned and Golden-crowned Kinglets have been conspicuously well represented, the former in song. The Winter Wren is a bird of decided rarity as a *spring* migrant in this region. I saw one in Lexington on April 12 and Mr. Sam E. Brown reports two which he saw a few days earlier in Hampton Falls, (southern) N. H. The presence of these three birds is noteworthy as indicating an unusual flight of these little birds, for during the great majority of springs not a single Winter Wren will come under notice.

No such flight of Fox Sparrows as occurred this year has taken place since the remarkable flight in April, 1907. This year, as was the case fifteen years ago, a heavy snowfall came in April and prevented the birds from advancing northward. The Fox Sparrows were singing everywhere and collected in such numbers about our door-yards that they attracted the interest and admiration of many people who never saw, or heard, or heard of, a Fox Sparrow.

May their interest in birds continue!—WINSOR M. TYLER, *Lexington, Mass.*

NEW YORK REGION.—The late winter had been so barren of birds that it left no doubt when, at an early date the first spring movement began. At Garden City, L. I., Feb-

ruary 26, Song Sparrows were back and in song where there had been no Song Sparrows for weeks. The same day, as the sun went down in a pinkish light with gray clouds over the sky, and a warmer air dragged out of the South, after two bright clear days, eight Grackles were counted flying over. The whistles of Meadowlarks were heard again on February 28.

Despite these prompt beginnings, it was the general impression that early migrants were behind schedule throughout the New York Region. Robin and Chipping Sparrow were unquestionably late in arriving in numbers; an individual of the latter species (Elizabeth, N. J., March 26, C. A. Urner) being an exception. Garden City is a good breeding station for the Flicker which unquestionably does not winter there. The occurrence of the first individual reported March 25 this year (W. F. Nichols), is therefore of interest. The species was noted by the writer on the following day.

With April, on the other hand, the tide of birds was running ahead of the calendar, as definitely evidenced by a small but well-marked flight of Barn Swallows April 9. On that day, which was warm and cloudy with a strong southerly wind, the writer observed one flying low, in an easterly direction over the Hempstead Plains, L. I., and upwards of half an hour later, two together followed the same course. Two were noted flying north near Englewood, N. J. (L. Griscom and L. O. Williams). The species was seen near Elizabeth, N. J. (C. A. Urner), and also one was reported from the Bronx. Though not generally met with, the Tree Swallow had been present near New York considerably earlier, for 200 to 300 were reported flying north up the coast at Asbury Park, N. J., March 26 (H. Thurston), and one or two at Long Beach, Long Island, on the same day (W. C. Starck).

The unusual frequency of the Northern Shrike through the winter is doubtless responsible for late spring dates for that bird, April 9, Hempstead, L. I. (J. T. N.) and April 14, Central Park, New York City (Griscom). Snowy Owl and Iceland Gull were last recorded about the Newark marshes at Elizabeth (Elizabethport), April 1 (Urner).

Iceland Gull on the Hudson and Saw-whet Owl at Englewood April 16 (Griscom) are late dates of interest.

The spring flight of Ducks was very satisfactory. The Green-winged Teal, a species that has been rare in spring for many years, was generally not uncommon. A Hooded Merganser, was seen at Mastic, L. I., April 15; two Blue-winged Teal, one of them a fine drake, at the same locality the next day (J. T. N.).

Other early dates of interest are: Englewood, Ruby-crowned Kinglet, April 2 (E. R. P. Janvrin and L. O. Williams); Elizabethport, Green Heron, April 9 (Urner); Central Park, Solitary Vireo, April 11 (Griscom); Plainfield, N. J., Thrasher, April 16 (W. D. W. Miller); Mastic, Henslow's Sparrow, April 14, downy young Woodcock, April 17 (J. T. N.).

A very large flock of Grackles (some 500) at Englewood, April 16, were studied at close range and many of its individuals, all that could be definitely identified, were the Bronzed Grackle (Griscom and J. M. Johnson).

At Upper Montclair, N. J., a 'winter' Song Sparrow (No. 44699) after being taken in the traps nine times beginning February 4, paid its last recorded visit March 4 (the last was March 6 in 1921). A 'summer' Song Sparrow (No. 47143, see January-February BIRD-LORE) was trapped again March 23, after absence since October 16, 1921, and has been taken several times since (Howland). Some Song Sparrows are obviously winter, others summer residents, coming and going on schedule. Will it be found that others still are permanent residents?—J. T. NICHOLS, *New York City*.

PHILADELPHIA REGION.—No unusual weather conditions were apparent until April 8, 9, and 10. The temperature hovered around 85 degrees on these days, which, according to the local Weather Bureau was a record-breaking heat-wave for any like period during April since the Bureau had been established. Vegetation, which up to the 8th appeared normal, took a sudden spurt and at this time (April 13) many shrubs and trees appeared well clothed with leaves.

No other birds than the ordinary early spring migrants have been noted, and it seems quite probable that the warm spell deluded no north-bound birds into advancing any farther than they would have under usual conditions. Dates when early spring arrivals were first noted at Camden are as follows: February 26, Purple Grackle and Fox Sparrow; March 25, Killdeer, Kingfisher, and Bluebird; March 26, Dove and Phoebe; April 2, Hermit Thrush; April 6, Chipping Sparrow; April 12, Myrtle Warbler.

The Woodcock perhaps is somewhat more common than usual this spring: Ventnor, N. J., March 19, one; Merchantville, N. J., April 2, one; Mt. Holly, N. J., April 7, one incubating eggs. This last report comes from Mr. N. D. W. Pumyea. Wild-fowl have appeared on the Delaware in their normal numbers: Fish House, N. J., March 18, Pintails, 6; Bufflehead 1. April 18, Merganser, 10, Red-breasted Merganser, 5; Black Duck, 2; Scaup (Lesser?), 300; Canada Goose, 5.

Records from the New Jersey Coast of interest are: Corson's Inlet, March 12, Great Black-backed Gull, 5; Red-backed Sandpiper, 50 (see last report; these birds were diligently searched for subsequently on April 9 and could not be located); Ipswich Sparrow, 2; Snow Bunting, 2. April 9, Great Black-backed Gull, 1; Piping Plover, 25. Ventnor, March 19, Piping Plover, 5; Northern Shrike, 1. The Piping Plover records indicate a marked increase over numbers noted several years back, when the sight of one or two individuals was a noteworthy occurrence.

Mr. T. G. McMullen reported the following Raptores found nailed to a farmer's barn at Penns Grove, N. J., March 6, all of which appeared to have been recently trapped: Barn Owls, 6; Long-eared Owls, 11; Short-eared Owls, 1; Screech Owls, 4; Great Horned Owl, 1; Red-shouldered Hawk, 4; Cooper's Hawk, 2. A short time later three more Screech Owls had been added to the lot. It is worthy of note that in his efforts to protect his chickens (the excuse the farmer gave for trapping the Hawks and Owls) he succeeded in capturing only three notorious villains, the remainder being decidedly beneficial.—JULIAN K. POTTER, *Camden, N. J.*

WASHINGTON REGION.—Comparatively few of the summer resident or transient species ordinarily reach Washington before April 1. The principal bird migration phenomena of February and March are, therefore, the influx of individuals of our permanent residents and the usually gradual withdrawal northward of some of our winter residents, particularly water-fowl.

During these two months of 1922 a moderately and evenly cold temperature somewhat retarded the advance of spring. The migratory movements of birds, due to warm weather in the southern states, were, however, about normal. A few species—the Killdeer, Red-winged Blackbird, Vesper Sparrow, and Chipping Sparrow—were apparently late in arrival, but some others, such as the Mourning Dove, Phoebe, and Swamp Sparrow were decidedly ahead of their usual spring appearance. One bird, the Pine Warbler, seen in Rock Creek Park by Mr. Carlyle S. Baer on March 5, was one day ahead of its previous earliest record of March 6, 1910.

An index of the character of the bird-life about the city and suburbs of Washington may be gained from the following list of species most frequently seen during the month of February of this year: English Sparrow, Cardinal, Slate-colored Junco, American Crow, Fish Crow, Blue Jay.

During the month of March the list was almost the same: English Sparrow, Cardinal, American Crow, Fish Crow, Song Sparrow, Purple Grackle, Blue Jay; and, during the latter half of the month, the American Robin.

A single Duck Hawk, which is a rare species in this region, was seen by Dr. A. K. Fisher, at Plummer's Island, Md., on February 19. The White-crowned Sparrow was observed by Dr. C. W. Richmond, feeding in his yard on the outskirts of the city of Washington on February 4, 5, 14, and 16. These occurrences are of considerable interest, since there is apparently but one previous winter record of the species here. The same, or another bird was seen by Miss Katharine H. Stuart on March 26 near the tidal basin along the river at Washington.

The Ducks of various species that have during the winter frequented the Potomac

River in numbers below the city, gradually departed for the north during the latter part of March, and by the last of the month were largely gone; but of course some will remain for a time into the month of April. The Canada Goose has been noted this year more frequently than usual, and several times in flocks of considerable size. Mr. Smith Riley saw two large flocks flying over the city March 23 and 24; and Mr. William F. Bancroft observed a flock of seventy-five on March 26. This apparent increase in numbers of this interesting species is another of the many indications of the value of recent efforts at protection of our migratory waterfowl.—HARRY C. OBERHOLSER, *Biological Survey, Washington, D. C.*

OVERLIN (OHIO) REGION.—Following another exceptionally mild winter, the migrations began on February 20, with the arrival of Crows, Robins, Bluebirds, Killdeer, Song Sparrows, Canada Geese, Meadowlarks, Bronzed Grackles, Red-winged Blackbirds, Mourning Doves, and Greater Scaup Ducks. This is a larger number of arrivals for the first 'wave' than we have had in years. The birds composing it really belong to the first two 'waves'. Then followed a lull until March 5, when Northern Flickers and Towhees came, along with an increase in the numbers of the first arrivals. The next movement began on March 9 and ended on the 13th, when the arrivals were Cowbird, Chipping Sparrow, Great Blue Heron, Field Sparrow, Black Duck and Lesser Scaup Duck. The third movement came on the 17th, 18th and 19th, a very marked movement of most of the birds that had already come, and the following: Baldpate, Pintail, Mallard, Green-winged Teal, Hooded Merganser, Bufflehead, Fox Sparrow, Rusty Blackbird, Wilson's Snipe, Coot, Tree Swallow, and Shoveller,—the most marked movement was on the 18th. Turkey Vulture came on the 23d, Phoebe on the 24th, Woodcock and Vesper Sparrow on the 25th, White-throated Sparrow and Hermit Thrush on the 26th. On March 31 the Yellow-bellied Sapsucker and Horned Grebe arrived; on April 1 Purple Martin; on April 3, Upland Plover, Bonaparte's Gull, Louisiana Water-Thrush, Blue-winged Teal, Pied-billed

Grebe and Bittern; on the 4th, Ruddy Duck; the 5th, Loon; the 8th, Myrtle Warbler; the 9th, Swamp Sparrow, Barn Swallow, Ruby-crowned Kinglet, Bobolink; the 10th, Brown Thrasher, Greater Yellow-legs, Grasshopper Sparrow, Savanna Sparrow, Palm Warbler; the Osprey and Chimney Swift on the 15th completed the migrations to date. Thus, it is seen that while some species are distinctly ahead of schedule others are equally behind schedule. Temperatures have been favorable for movements, for the most part, but the persistently wet weather, with cloudy and foggy nights have been hindrances.—LYNDS JONES, *Oberlin, Ohio.*

CHICAGO REGION.—The past two months have been cold and rainy for the most part, but there has been a warm spring day here and there to encourage the birds. The first of these days was February 22, when Robins were reported from many points about the city. By March 1 they were fairly common, and Bluebirds, Meadowlarks, Song Sparrows, and Grackles were arriving almost every day.

There have been no unusual records made recently, but a few early arrivals have been reported. A Fox Sparrow was seen at Hyde Lake February 26, and a Swamp Sparrow at Jackson Park, February 28, by Dr. Lewy. The writer saw a Sora Rail at Beach, Ill., April 11. Ducks are plentiful on the marshes and lake, eighteen species having been reported to date. Wood Ducks were seen March 12 and Red-head and Canvasback April 2. The American and Red-breasted Mergansers are the commonest Ducks along the lake and the Pintails and Mallards the commonest on the marshes. The lagoons in the city parks are always a refuge for Ducks in stormy weather. Ruddy Ducks were found in Jackson Park, February 26 and Ring-necked 'the 27th.

The only Yellow-legs so far reported was seen at Warrenville, March 19, and the only Wilson Snipe, March 23, at the same place by Mr. H. B. Conover. Last year the third week in March found the marshes full of Snipe, with many Yellow-legs and Pectoral Sandpipers, and I have been at a loss to account for their absence so far this year.

The migration seems to be fairly well under

way at this writing. Purple Martins, Tree and Barn Swallows appeared the last week with Savanna, Vesper, Field and White-throated Sparrows. A few Myrtle Warblers have also been seen. With the exception of the Snipe and other shore-birds there seems to be nothing out of the ordinary in the migration so far this year.—COLIN CAMPBELL SANBORN, *Chairman Report Committee, Chicago Ornithological Society.*

MINNESOTA REGION.—Following the severe sub-zero weather of mid-February there was a brief respite of a few milder days and then Minnesota, in common with almost the entire middle portion of North America, was visited on the 22d and 23d by a furious storm of thirty-six hours' duration which was marked by rain, *thunder and lightning*, sleet, high wind, and finally a heavy fall of snow, the most serious winter disturbance that had occurred in five years. Eight inches of snow fell at Minneapolis and much more in the northern portion of the state. The high winds that prevailed led to immense drifts and the tie-up of communication of every kind was almost complete throughout the state. Duluth and other northern cities were literally snowed under. The temperature, however, was not very low, being in the vicinity of zero. The heavy sleet that preceded the snow froze over everything and thus produced conditions that were very bad for most all wild creatures. The month of February closed with several very cold days, 11 degrees below at Minneapolis, 12 below at Duluth and 18 below at Moorhead.

From this time on through March and the first half of April there have been no specially low temperatures but the weather has been almost uniformly cold and 'raw,' with rather frequent rains and sleet and now and then 'skits' of snow. Twice only, on April 3 and April 8, has the temperature reached 60 degrees. The ice went out of the Minnesota River on March 21 and on the 26th began coming over the Falls of St. Anthony at Minneapolis from the upper Mississippi, continuing to pass for many days on a steadily rising flood due to the melting of the vast deposit of snow in the country from which the river comes. An additional heavy fall of

snow occurred in this northern country on March 27 and 28, amounting to 6 inches in the Red River Valley and nearly twice that amount in the Lake Superior region. On the night of April 10, after the early spring movement was well under way, there was a fall of about one-fourth inch of snow at Minneapolis, accompanied by a fierce wind that reached almost the proportions of a blizzard. Horned Larks had both eggs and young at this time, and it is a marvel how they brought them safely through such terrible conditions.

Between April 6 and 12 the ice went out of the smaller lakes in the vicinity of Minneapolis, only a few days later than last year, but the larger lakes are still almost entirely covered with black and porous ice at the time of this writing—April 14. The lakes in the northern part of the state are still ice-bound.

The latter half of February did not bring anything new in regard to winter birds. Evening Grosbeaks, Bohemian Waxwings, and Redpolls continued to be reported from all parts of the state, the Grosbeaks in considerable flocks in several places. The Magpie invasion seemed to have ended, no further reports being received. A flock of about fifty Snow Buntings was seen some 15 miles north of Minneapolis on February 18 by Mrs. Roy Hodson, a rather unusual occurrence of late years. Mrs. Hodson also reported a flock of about 100 Prairie Chickens wintering in the same locality. Dr. Leudtke, of Fairmount, Martin County, near the Iowa line, writes that Brewer's Blackbirds wintered in a number of places in that vicinity, feeding about pig-pens and doing very well. The Doctor also reported a Song Sparrow in his yard on February 24, possibly a bird that had passed the winter nearby. Bernard Bailey saw many Horned Larks at Elk River, north of Minneapolis, on February 18, after which they disappeared until early in March. The first Horned Larks were reported at Minneapolis on March 4 by Miss Tillish and soon thereafter they became more numerous than for years past, remaining to breed here. The first nest was reported on March 24 within the city limits (Mr. William Butler). It contained four eggs. Between that date and April 14 three additional nests are known to have been discovered, all containing young—

April 2 (Miss Morse), April 8, two young just hatched (Mrs. Cook), and April 14 a nest with four young about four days old on the Ft. Snelling prairie (Roberts). The last nest passed safely through the blizzard of April 10. In previous articles I have remarked upon the scarcity of this bird as a breeding species in this vicinity in recent years but this spring marks apparently a return of the bird in fair numbers as all observers report its continued presence.

Geese and many Ducks entered the southern counties in early March, the former reaching Roseau near the Canadian Line April 2 (Fryklund). Omitting mention of 'strays,' Robins appeared in the southern part of the state in the second week in March—March 13 at Fairmount and Montevideo, March 14 at Ivanhoe, March 15 at Minneapolis—reaching the middle of the state by the last of the month—March 27 at Detroit and Fergus Falls—and the northern counties in early April—April 5 at Roseau, April 6 at Duluth. The arrival dates for the Bluebird, Song Sparrow, Meadowlark, Phoebe, Killdeer, and Marsh Hawk were very nearly the same, the Phoebe a few days later than the others. Herring Gulls from the south appeared in the gorge of the Mississippi below St. Anthony Falls on March 14. Great Blue Herons were at their nesting-place on Lake Minnetonka March 25 while the ice was still firm in the lake (Commons). The first Ruby-crowned Kinglets were reported on the University campus March 27 (Miss Sewell).

The following record is for Minneapolis and vicinity:

April 2. Hermit Thrush (Mrs. Keyes); Fox Sparrow (Mrs. McIntire); a Saw-whet Owl, very tame. Buds of the red-berried elder opening in sheltered places.

April 4. A flight of Red-tailed Hawks. The Saw-whet Owl seen yesterday was today perched in the same place, eating, piece-meal, a Song Sparrow.

April 5. First Martin. First soft maples in bloom (Huff).

April 6. Rusty Blackbirds migrating in flocks.

April 8. White-throated Sparrow (Mrs. Keyes). A Grinnell's Water-Thrush seen by the writer was many days ahead of any pre-

vious record for this species. A pair of Sparrow Hawks examining a possible nesting-hole (Commons).

April 9. Skunk cabbage in bloom in Minnehaha Glen and some plants almost through blooming (Huff).

April 10. A flock of fifty White Pelicans alighted and spent most of the day in a medium-sized lake within the city limits (Lake Nokomis), an interesting and unique occurrence that attracted much attention. A Red-bellied Sapsucker at St. Paul (Thompson).

April 11. First pasque flowers in bloom. A flock of twenty-five Bohemian Waxwings (Mrs. Wicks).

April 12. A Migrant Shrike. Large flocks of Purple Finches; they are very common this spring but were almost entirely absent last spring.

April 14. Double-crested Cormorants; many Ring-necked Ducks in pairs; Coots in large numbers; a pair of Sapsuckers. There is very little evidence of vegetation starting in the woods.—THOMAS S. ROBERTS, *Zoological Museum, University of Minnesota, Minneapolis, Minn.*

KANSAS CITY REGION.—A review of local notes for the past winter shows some unusual records. Persistent and entirely authentic reports from five points in this vicinity establish the fact that three species of shore-birds braved the rigors of a rather severe winter to remain here throughout the entire season. These birds were the Killdeer, Wilson's Snipe, and Greater Yellow-legs. This is unprecedented in the case of the Killdeer and Greater Yellow-legs, so far as is known to local observers. William Andrews remembers Wilson's Snipe wintering here in previous years, and there are older records extant.

The Mergansers, Doves, and Kingfisher referred to in the last letter, remained all winter, and a correspondent a hundred miles up the Missouri River writes that a few Mallards, Pintails, and Golden-eye wintered in his region.

A nest of the Great Horned Owl was found near Lawrence on February 18 by Mr. Jean Linsdale. The two eggs were deposited on

the bare floor of a cavity in an immense cottonwood tree and were nearly ready to hatch. This is late for eggs of this species in this region.

Water-fowl began to move north early this year. By late February eleven species of Ducks and the Canada Goose had been recorded. The heaviest early flights were on February 19 and 22. On February 23, the first movement of Sparrows was noted, when numbers of Song, Swamp, and some Lincoln's were seen and heard, followed on the 26th by the first large flocks of returning Harris's and White-throats with a few Fox Sparrows. At least a thousand Siskins and a few small flocks of Purple Finches, all silent, were noted between these two dates. Immediately after the blizzard of February 28 a dozen sizable flocks of Ducks were seen on the Missouri River just above the city, and from this date until March 5 a general movement among the early land-birds seemed to be under way.

Meadowlarks, singing, and fighting, appeared in numbers on their breeding-stands on March 6. It will be remembered by local observers that this is nearly three weeks later than these birds came in numbers last year, which was an abnormally early season. Robins and Bluebirds took up their breeding-stands about the same time this year, and Prairie Horned Larks had been carrying nesting material for some time. Nine pairs of these Larks were under observation daily but no nests were found until the 12th of the month. Purple Martins arrived in force on March 15, though scouts had been seen as early as the 8th.

Owing to a far more backward season than last year, the first full spring chorus did not burst forth until March 11. By and on March 17 species too numerous to list were present and passing through, and singing and mating birds were making every grove and pasture ring with wild melody. A typical wave of thousands of the larger Sparrows came in on the 18th to add to the already crowded thickets and weed patches. Harris's Sparrows of course predominated, and it is good to see this fine species returning in its old-time abundance.

The horde of Red-winged Blackbirds

referred to in the January-February letter from this point remained in their winter quarters until some time during the first week of March. It will be recalled that these birds were all females, and it is interesting to record that their place was taken immediately by returning flocks of males. The inference is that these wintering females were of a northern subspecies the males of which had wintered north of here. A good series of specimens was taken and it is confidently expected that the form will turn out to be *A. P. fortis*.

During the first three weeks of March at least a dozen nests of the Prairie Horned Lark were under observation, but owing to a period of cold and wet weather, results were far from satisfactory. However, records continue to slowly accumulate, indicating that three-egg sets are the rule in this region for the early laying of this species.

A breeding pair of Killdeers was seen on March 20 when the usual broken-wing tactics were used to lure the observer away from the eggs. Another wave of returning Sparrows of several species was observed on March 25, and on the 28th a flock of nine migrating Prairie Horned Larks was noted coincident with the finding of a nest of this species containing three slightly incubated eggs. On the 29th Chipping Sparrows were seen carrying nesting material, and on the 31st the height of the Flicker flight was on, noticeable this year owing to unusual numbers of these flashy and noisy birds.

A hard freeze on the night of the last day of March doubtless endangered the eggs of some of the early nesters, though the danger was not to compare to the Easter blizzards of the past two years.

The arrival of several species was noted on April 2, including Ruby-crowned Kinglets (weakly singing), Blue-gray Gnatcatcher, Least Flycatcher, a single Chimney Swift (early), and a single, silent Brown Thrasher. A barn Owl, extremely rare in this neighborhood, was flushed from a pine tree in Forest Hill Cemetery on April 9. Juncos are still (April 13th) present in abundance over the entire region. This is late even for stragglers and may be accounted for by the recent two weeks of wet weather, though other small

species do not seem to have been inconvenienced by it.—HARRY HARRIS, *Kansas City, Mo.*

DENVER REGION.—Midwinter has heretofore seemed the least interesting, in an avian way, of all our seasons. The winter with us gives possibilities of noting many interesting species because of the proximity of the Rockies. This is true even of late winter, notwithstanding that it is a transition period. The past season (and in fact all the winter) in and about Denver has seemed exceptionally quiet so far as birds are concerned.

On January 18 we had zero weather, yet Robins were noted in the city, and on the 20th (zero weather again) a Batchelder's Woodpecker was seen very busily cleaning the tree trunks in my neighboring park. On the South Fork of the South Platte River, near Cheesman Dam, hundreds of Robins remain all winter, attracted, doubtless, by an abundance of food in the timber and shrub growth. It is possible that a few of these birds may wander, any time that it is extremely cold, into Denver (air line only about 30 miles).

On February 22, a Sharp-shinned Hawk was seen on the campus of the University of Colorado (Boulder). This Hawk frequently haunts our parks and small towns all winter; it doubtless takes heavy toll of the English Sparrow in such areas, but since its discrimination is probably guided only by the taste of flesh, it most likely also destroys many House Finches.

It is common to see two subspecies of Chickadees here all winter, the Long-tailed and the Mountain. During the season now passing, only the Mountain form has been observed; many have visited my home neighborhood every day. This interesting little bird frequently becomes so soiled by the city dust, smoke, and grime that the white superciliary line seems black, making it extremely difficult to determine if the bird be the one form or the other.

No Bohemian Waxwings have appeared in the region during the entire winter but, as said before, they have occurred in large numbers in and about Grand Junction.

Townsend's Solitaire is a bird of irregular occurrence in Denver; some remain all winter yet it is most commonly noted in numbers during the fall and early spring migrations. One appeared in the vicinity of my house on February 9, and, at the time, I hoped it portended an early spring, a wish not entirely unsatisfied, since several species have arrived in force somewhat earlier than usual, amongst which are the Pine Siskin (seen on February 14), Robins almost daily since January 15, Bluebirds from February 23 on. Meadowlarks have remained in the region in large numbers all winter and have invaded the city suburbs considerably earlier than the average, one being detected in Cheesman Park on March 12. On the same day, and in the same locality, four species and subspecies of Juncos were seen, to-wit, Slate-colored, Shufeldt's Gray-headed and Pink-sided. Notwithstanding this, however, Juncos continued relatively scarce as during the previous winter months.

No opportunity has presented itself for me to visit a locality wherein Ducks and other water-birds might be found; that they are here is very evident, since the Killdeer has been detected flying over the city and in the suburbs on several different occasions.

On March 26, the first Say's Phoebe was seen, and the Gray-headed Junco still lingers in the region, it being the last Junco to leave the plains. Robins have appeared in swarms after light snowstorms of March 18, and April 9, and 12.

The House Finch and the Bluebird both are busy now building nests while the resident Robins give us a chorus each morning at daybreak.—W. H. BERGTOLD, *Denver, Colo.*

PORTLAND (ORE.) REGION.—The spring months in the Oregon district have been exceedingly backward, and, as far as vegetation and crops are concerned, the spring season is now nearly a month behind the average. This has checked very markedly the bird movement, and the birds have been slow in arriving and have not been as abundant in numbers as usual. While we do not have the great migration waves so noticeable in the Mississippi Valley and on

the Atlantic Coast, there is a marked migration movement in this district. The migrating birds are much less numerous, both as to individuals and species, in a given period than they would be in a similar period in the East.

The first migrating Western Bluebirds were noted on February 3, but it was the roth before any great numbers of them were present. A few Bluebirds remained in this district all winter, but it is quite easy to detect the migration movement by the increase in the number of individuals present.

On February 13, while en route to Redmond, Ore., which is about 250 miles east and south of Portland, immense numbers of Robins were noted. This country is covered with junipers, and the only thing I ever noted comparable to the numbers of Robins which swarmed out of the juniper trees where they had been roosting, has been in some of the big Crow roosts in the Middle West. The Robins in this particular case had been roosting alongside the track and it was barely daylight when the train disturbed them. They flew up and circled about like a veritable swarm of bees before scattering from the roost.

On my return to Portland from the Redmond country I saw the first pair of Killdeer on February 17. The numbers increased daily until they were quite abundant by the 20th of the month. In this country the Killdeer are much more familiar birds than in some other sections. I recall my astonishment on the occasion of my first visit to the Oregon Agricultural College in December, about three years ago, to see hundreds of Killdeer running over the campus as I had been accustomed to seeing Robins in other places. I have become accustomed to them now but often think of my feelings when I observed them at first.

On March 17, Mr. R. C. Steele noted a great flight of Geese down the Columbia River. This was the first big flight of the season, although small flocks and few birds had been noted in January and throughout February. Mr. Steele states that most of the birds in the flock were Canada Geese.

Mr. S. G. Jewett reports that on March 17 he saw three Rough-legged Hawks in Uma-

tilla County and on the 19th a Redpoll and a Say's Phoebe at Pendleton. The Redpoll is rather an unusual record as they have not appeared in Oregon for the past several years. This particular bird was a male in full plumage. On the 21st, Mr. Jewett noted a Magpie nest containing three fresh eggs, in the same district.

The first migrating bands of Audubon's Warblers appeared at Portland on the morning of March 20. They have been common ever since. On the 22d a single Northern Violet-green Swallow was observed in the suburbs of Portland, and on the 26th great numbers of them were present. On March 27, a large flock of Evening Grosbeaks were present in a tree in front of the hotel windows at Dallas where I was staying. These birds were present every morning for a week while I remained in this place. The flock numbered between twenty-five and fifty, varying between the two numbers. On the same date the first Turkey Buzzard of this season was noted.

About April 1, the weather became somewhat warmer and the birds appeared more active and in greater numbers. The Western Savanna Sparrows were noted on April 1, and Western Chipping Sparrows and Oregon Vesper Sparrows on the 3d. All of the ordinary spring birds, such as Bluebirds, Robins, White-crowned Sparrows, Golden-crowned Sparrows and others became much more abundant and more noticeable at this time. On April 8, the first Rufous Hummer was noted. It came to a flowering currant bush in the writer's yard and has appeared there daily since. On April 9, a field trip of considerable duration was taken but no new migrating birds were noted although there was a great increase in the Golden-crowned Kinglets in the coniferous forests. Both Oregon and Chestnut-backed Chickadees were also common, and California Creepers and Seattle Wrens were noted to be particularly numerous for this season of the year. This is particularly true of the California Creeper. Fully a dozen were noted during the trip, which is probably as many as the writer has seen altogether in western Oregon. On my return to Portland on April 1 I noted that the abundant Gulls which have been

about the harbor all winter had decreased in numbers very much and only an occasional one seems to be present where there were dozens a few days ago.—IRA N. GABRIELSON, *Portland, Ore.*

SAN FRANCISCO REGION.—Spring has advanced with such lagging steps that Nature is still wearing the garb of mid-March. The tender green foliage of hazel, spirea, and live oak are awaiting the encouragement of warm sunshine and balmy air before venturing too boldly forth. The birds, too, seem to be waiting.

On April 13, among the water-birds on San Francisco Bay were many Bonaparte's Gulls. Ordinarily they busy themselves about the outlets of the sewers or sun themselves on the tide-lands near the shore, but on this date they were following the boats in company with the other Gulls. Of these the California Gulls were most numerous, Western Gulls common, Ringbills scarce, and Glaucous-wings limited to immatures. Lesser Scaup, White-winged Scoters and Surf Scoters dotted the bay, and only two or three Western Grebes were seen. Shore-birds were conspicuous by their absence. Only two, the size of Willets, were seen although the tide was favorable for feeding.

In Golden Gate Park, on the same day, eight downy Mallard ducklings followed their mother across North Lake, and Ruddy Ducks were in nuptial plumage. Observation of marsh-birds was limited to one day—March 18. Conditions were still those of midwinter with vegetation very backward. Heavy rains had flooded the country for miles about, so that it was impossible to discover the rendezvous of Avocets and Stilts, if they were present. Coots, Dowitchers, and Killdeer were abundant.

Among the land-birds, many of the permanent residents are mating and a few have been found building. On April 6, Bush-Tits had a nest half finished, while an Anna's Hummingbird had a family partly raised. Unfortunately for the latter, the owner of the house under whose eaves she had built her nest found it necessary, in order to do some painting, to pull down the vine which gave the nest support. The nest was removed to a

nearby bush and protected by a roof of corrugated paper. The mother bird, however, continued her duties and the young are nearly ready for flight (April 14). Purple Finches, Rufous-crowned Sparrows, and Nuttall's Sparrows are in full song, the last singing at all hours of the night. A pair of Lark Sparrows was seen on April 2 on the hill above Fort Baker. On April 13, in Golden Gate Park, Pacific Yellow-throats and Vigos' Wrens were evidently mated.

Winter visitants have been more affected by the unusually low temperatures than have the permanent residents. Audubon's Warblers have been reduced in numbers since January, while Golden-crowned Sparrows and Fox Sparrows have deserted their usual feeding-grounds on north-sloping hills. A banded White-throated Sparrow, an unusual bird on this coast, has remained on the feeding-ground since December 8. Intermediate Sparrows are more numerous now than at any time during the winter and are passing through the prenuptial moult. Cedar Waxwings are feeding on the berries in the park at Lake Merritt. Townsend's Warblers are abundant in the Claremont Hotel grounds, on the Berkeley campus, and in other favorite spots, and are singing freely. Golden-crowned Kinglets and Varied Thrushes have been seen on the campus, but they have not been abundant. The call of a little Western Winter Wren, which has been a familiar note heard daily through the winter, was missed early in March.

Earliest dates reported for spring migrants are: Lutescent Warbler, March 14 (Snake Road); Violet-green Swallow, March 18 (Baumberg); House Wren, March 22 (Claremont Canyon); Pileolated Warbler, March 25 (Claremont Canyon); Western Flycatcher, March 28, and Warbling Vireo, March 30 (Strawberry Canyon).—AMELIA SANBORN ALLEN, *Berkeley, Calif.*

LOS ANGELES REGION.—Continued wintry weather, with frequent storms in the mountains and cold winds from the extensive snow-covered areas, retards the development of vegetation and, apparently, also the northward movements of birds. According to the state crop report, issued April 10, the bloom-

ing of the fruit trees is from two to four weeks late.

While the average monthly temperature for the season in Los Angeles has been but one degree below the normal, to the average citizen it has seemed very cold. To be exact, I called upon the observer at the meteorological station this morning for data. The station on Mount Wilson this morning, April 13, recorded a temperature of 10° Fahr. The rainfall for the season recorded there to date has been 59.32 inches, which is three and one-half times the amount that fell last year. In Los Angeles the record to date is 19.06 inches, five one-hundredths of an inch of which fell yesterday, partly in the form of a snow-flurry from the severe storm which prevailed in the mountains. The prevailing low temperatures are serving to hold the snow on the mountains and while the streams are running bank-full there has been little flood damage during the period covered by this report, the rainfall for March having been below normal. The winter land-birds are still here in normal numbers. Band-tailed Pigeons are reported from many localities in flocks of considerable size. A resident of the oak regions in the Santa Ana Mountains reports a serious depletion of mast on which he depends for forage for hogs in consequence of the consumption of acorns by the hundreds of Pigeons which have invaded the region. Lewis's Woodpeckers were noted as recently as April 12. Mountain Bluebirds and Slender-billed Nuthatches have not been noted since the middle of March.

A Northern Flicker was a visitor at the drinking-fountain in the garden of one of our Pasadena members March 10. To this same garden, during the last few days, have come an Orange-crowned Warbler and a Calliope Hummingbird. The Rufous Hummingbird was first noted February 13, again on the 24th, and frequently since that date. February 19, a small flock of Swallows was seen flying high, unidentified. Violet-green Swallows were recorded February 22. The Lutescent Warbler was seen February 22 and 24, but did not become common until late March. March 7, Lawrence's Goldfinch appeared. March 15, many swallows in a mixed flock, mainly the Violet-Green, passed

northward over the San Gabriel River. March 26, there was a large influx of Tree Swallows with a few Barn and Rough-winged. Purple Martins arrived March 17, and Arizona Hooded Orioles March 15. Kingbirds were first noted March 22, when Western Vesper Sparrows were seen, and the flight-song of the Horned Lark and the Meadowlark noted. Bullock's Oriole was not recorded until March 30. April 2, the Black-headed Grosbeaks were seen in two different localities, and during the succeeding week arrived in numbers. The list of Warblers to date includes only the Lutescent, Pileolated, Black-throated Gray, and Calaveras; but few individuals have been seen. Flycatchers have also been scarce, only an occasional Western, Traill's, and one Ash-throated having been recorded. Warbling and Cassin's Vireos have been noted occasionally.

The lure of the desert, with its riot of bloom following the unwonted abundance of moisture, has drawn some of our group of bird observers to Palm Springs where the Verdin was found building, and to the Mohave where the Desert Black-throated Sparrow obligingly perched upon the sagebrush while all his points were observed. In the latter locality the Sage Thrasher was also found.

About the middle of February, large flights of Wild Geese were noted and Ducks were very numerous in the sloughs. Canvasback, Pintail, Shoveller, Scaup, Redhead, Green-winged, and Cinnamon Teal were noted. March 12 and 18, Glaucous-winged and California Gulls were leaving, Horned Grebes and Egrets were last seen on the latter date when both were showing signs of nuptial plumes. On the same date occurred the first recorded appearance of the Hudsonian Curlew this season, two individuals. One Long-billed Curlew, one Yellow-legs, and one Black-necked Stilt were listed.

March 26, about fifty Hudsonian Curlew and a few Marbled Godwits had joined the company, together with hordes of small Sandpipers. March 15, a large flock of White Pelicans was seen passing northward. On March 19 and 26, large flights of Little Brown Cranes were noted over Pasadena.—FRANCES B. SCHNEIDER, *Los Angeles, Calif.*

Book News and Reviews

THE BIRDS OF BRITISH GUIANA. Based on the Collections of Frederick Vavasour McConnell. By CHARLES CHUBB. With a Preface by Mrs. F. V. McConnell. London. Bernard Quaritch. 8vo. Vol. I, 1916, liii+528 pages; Vol. II, 1921, lxxviii+615 pages. Folding map, 20 colored plates, numerous half-tones and line-cuts.

We are often asked for a textbook on the birds of tropical America and heretofore have been unable to refer the inquirer to any one work which would serve the purposes of identification as well as give some general account of habits. With the completion of Mr. Chubb's report on the McConnell collection there is at last available a book in English treating of a large proportion of the birds of northern South America, with descriptions of every species and plates or line cuts of many of them.

The edition of this valuable book is limited to 250 copies, a fact which not only increases its price (which we think is two pounds per volume) but, unfortunately, restricts the size of the audience it seems so well designed to serve.

Mr. McConnell did not live to complete the work he began so well, and his widow has not only secured the services of Mr. Chubb in producing these two fine memorial volumes, but has defrayed the cost of their publication and, finally, presented the collection on which they are based to the British Museum, thus reaping to the utmost the fruits of Mr. McConnell's labors.—F. M. C.

THE MINDS AND MANNERS OF WILD ANIMALS. By WILLIAM T. HORNADAY. 12mo. 328 pages, numerous half-tones.

Mr. Hornaday's many years' service as director of the New York Zoological Park has given him exceptional opportunities to become intimately acquainted with many of the animals under his charge. Unfortunately, he devotes only one chapter of his book to birds, and that is based largely on the observations of others, but the student of mammals will find here a wealth of intensely interesting information.

Convinced of our kinship with the forms of life below us in the evolutionary scale, Mr. Hornaday writes with both insight and sympathy, and his book may be commended to the materialist on one side and the ultra-humanitarian on the other as a sane conception of our position in the world of animals.—F. M. C.

WHAT BIRDS HAVE DONE WITH ME. By VICTOR KUTCHIN, M. D., a Bird-Lover. Boston. Richard G. Badger. 12mo. 274 pages.

Dr. Kutchin may well sign himself a bird-lover, for every page of his book expresses the warmth of his feeling for feathered folk. Nowhere have we read a more eloquent and genuine tribute to the part birds may play in our lives, and we commend this volume to everyone who wishes to realize the value of birds to man and to establish intimate personal relations with them.—F. M. C.

The Ornithological Magazines

THE AUK.—In the death of Charles B. Cory, America has lost a man of large caliber who left an indelible mark on the history of Ornithology. Throughout early and middle life he used his considerable independent means in development and employment of unusual and varied talents for many fields, from music and golf to the study of birds. After the loss of his fortune, some fifteen years ago, and until his death, he held the post of Curator of Zoölogy in the Chicago Museum. "It has been said that ornithology to him was a game—the greatest and best game he played. If so, he played it like other games, to win, and none knew better than he that winners never quit." In the April *Auk* Osgood's résumé (with half-tone portrait) of Cory's life has much biographical and historical interest. In this issue also, Preble sketches the career of Roderick Ross MacFarlane (half-tone portrait). MacFarlane was an intrepid fur-trader in the service of the Hudson's Bay Company, to whom we owe

the foundations of our knowledge of the ornithology of northern Canada.

F. C. R. Jourdain reviews our knowledge of the nesting of the Barnacle Goose on precipitous crags in the north, giving details of observations thereon in Spitzbergen, and a full-page photograph of its nest with eggs. A. A. Saunders discusses flight-songs and mating-songs. A bird's flight-song may or may not likewise be its mating-song. E. R. Kalmbach compares the food of the Starling in Britain and America. With the recent increase of this bird to excessive numbers in Britain, associated with a heavy migration to the island in fall, its food habits have become injurious, whereas in America it is still distinctly beneficial to agriculture. Chapin gives the results of an anatomical study of the male American Bittern in breeding season, corroborating Bradford Torrey's observation that the pumping note is dependent on extension of the neck with air, and discussing the probable mechanics of the process (illustrated). Baldwin presents some details of bird-banding in 1921 (traps, and handling a bird in banding, illustrated from photographs). Mention is made of two Blue Jays at least six years old, a Cardinal at least five, a White-throated Sparrow of at least six years, which had made five trips to the north (from Georgia) and return, since being banded. A Myrtle Warbler, at least five years old, has made four trips. A transient Chipping Sparrow, passing through in March, is at least five years old. In Ohio, a Chimney Swift which came down the identical chimney in June of 1916, 1917, and 1921, must have been south each intervening winter.

In faunal papers, M. W. Daly gives an annotated summer list of 90 species from the southern Catskills, 14 being considered migrants; W. Rowan presents an annotated list of 106 species, the results of work at Indian Bay, Manitoba, from June 15 to August 4, 1920; and G. Wilson, an annotated list of 178 birds of Bowling Green, Ky. Oberholser lists various proposed changes in the 'A. O. U. Check-list of North American Birds.'

In 'General Notes' faunal items as usual predominate. From late January through February, 1922, a remarkable assemblage of

Canvasback Ducks, estimated at 10,000 birds, is reported from the Detroit River (E. S. Wilson). An increase of American Egrets is noted in Chatham County, Ga. (W. J. Ericksen). The introduced 'Hungarian' Partridge has become established in Saskatchewan (J. S. Dexter). The Black Vulture has been largely driven out of Georgetown, British Guiana, because of its proved pollution of the water-supply (C. A. Wood). In describing a Connecticut nesting of the Henslow's Sparrow, A. A. Saunders comments on hearing "only the short song." The reviewer has been familiar with a colony of Henslow's Sparrows on Long Island each summer since 1912, and never having heard anything but the short song, has wondered if there could possibly be confusion between the notes of this bird and those of the Grasshopper Sparrow, the *flickering* song of which is at times more frequent than its conventional one. The two species sometimes, but not usually, nest in identical situations.

E. L. Poole records a variety and numbers of northern breeding shore-birds among other water-birds seen at islands off Virginia, June 30 to July 2, 1921, including species, such as Black-breasted Plover and Knot, which would probably not have returned from the north at that date. This is a very interesting record, to discuss which space is not here available. Birds heard passing southeasterly over Iowa at night with a January storm (E. D. Nauman) sound, to the reviewer, like Snow Buntings. In bird-banding William I. Lyon finds that individual birds of a given species differ markedly in temperament.—J. T. N.

Book News

The Department of Public Instruction of the State of Pennsylvania, through its Superintendent, Dr. Thos. E. Finegan, has issued an exceptionally attractive and useful Arbor and Bird Day Manual. (Address, Harrisburg.)

The contents of the *Bulletin* of the Illinois Audubon Society for the spring of 1922, an illustrated pamphlet of 48 pages, bespeaks the continued activity of this organization as a society not alone for the preservation, but for the study of birds (Address, 1649, The Otis Building, Chicago).

Bird-Lore

A Bi-Monthly Magazine

Devoted to the Study and Protection of Birds

OFFICIAL ORGAN OF THE AUDUBON SOCIETIES

Edited by FRANK M. CHAPMAN

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Bird-Lore's Motto:

A Bird in the Bush Is Worth Two in the Hand

THE IBIS, organ of the British Ornithologists' Union (founded in 1858) speaks with the authority of maturity and the force of a conservatism which has ever characterized its editorial policy. Praise, therefore, from The Ibis is praise indeed, and only mock modesty would prevent us from admitting that the following quotation from the April issue of this magazine has given us so much pleasure that we cannot resist sharing the quotation—and we hope the pleasure—with the readers of BIRD-LORE: "We have nothing quite like BIRD-LORE on this side of the Atlantic, and it seems a pity that the British Royal Society for the Protection of Birds has not been able to attempt something of the kind. It is certainly the most attractive of all the popular magazines dealing with birds." Comment follows on various articles and reports which have appeared in recent numbers of BIRD-LORE, including the Christmas Censuses, and with a discrimination which, if possible, increases our already high estimate of the reviewer's judgment, he calls special attention to "the very useful Seasonal Reports from all parts of the United States which are to be found in each number."

WHILE our thoughts for the moment are on that side of the Atlantic to which the writer just quoted refers, we take occasion to speak of a provision of the British law regulating the importation of plumage which went into effect April 1, 1922. This measure permits the importation into England of

feathers from the Ostrich and Eider, and to this list other species may be added from time to time. But may we call the attention of those who are responsible for such additions, to the evil results which may follow the enforced concentration of the efforts of millinery collectors on specified birds? If the demands of fashion had not singled out for destruction Egrets, Paradise Birds, Crowned Pigeons, Least Terns, etc., we should not have witnessed the wholesale destruction of these species which has threatened them with extermination. So, the naming of certain species as the legitimate prey of the milliners may be equivalent to signing their death warrant and this, in other respects, admirable law, may thus defeat the very ends it was designed to serve.

BIRD-LORE frequently receives lists of birds found nesting on an acre, in a garden, orchard, or other definitely circumscribed area, and when space permits we publish the more interesting of these contributions. Observations of this kind, but on a somewhat larger scale, are now called for by the Biological Survey at Washington, which proposes to resume the systematic 'bird counts' it began in 1914. It is just as important to learn the bird population of deserts as of more favored places, and anyone with time and experience is eligible for this work without regard to the nature of area available for examination. Blanks and instructions may be obtained from the Survey.

OBJECTION has been made to our outline of the "requirements" of the ornithologist, published in the last issue of BIRD-LORE, on the ground that they are too "severe." In our opinion, however, they are not severe enough, and a more detailed treatment of the subject would show how broad a foundation should be laid by the professional ornithologist. But one need not be a professional ornithologist to enjoy the privilege of association with birds. To paraphrase a saying, one "may love birds and hate ornithology." But the bird-lover may be assured that his love of birds will increase with his knowledge of them.

The Audubon Societies

SCHOOL DEPARTMENT

Edited by A. A. ALLEN, Ph.D.

Address all communications relative to the work of this department to the Editor, Cornell University, Ithaca, N. Y.

THE COURTSHIP OF BIRDS

"All the world loves a lover." It loves him because at this period of his life, whatever good there is latent within him, whatever gentleness, comes to the surface, and his real personality shines forth. Whether that personality be attractive or not does not concern us, it is at least interesting if it is real. And so it is with birds, the period of courtship brings out the personality of the bird and the characteristics of the species as at no other time. One might easily learn to recognize every bird in his locality at sight, but he does not really know a single species until he has followed its courtship and peeped into its home life. Indeed we can understand but little of what we hear from birds and not much more of what we see until we have followed with a discerning eye through the period of mating and the rearing of the young. Their weird calls and their enchanting songs, their elegant plumes and their varied colors, their amusing antics and, indeed, many of their strange structures take on a new meaning after we have watched their courtship performances. We are all familiar with the display of the Peacock and the domestic Turkey and have watched the vain struttings and excited chipping of the Sparrow in the street, but the story of the vast majority of our commonest birds has never been fully written. Some that are conspicuous in their demonstrations, anyone can observe, but those that are less demonstrative require most careful observation and a trained understanding. How many bird-lovers, for example, who are so familiar with the Chickadees and Nuthatches at their feeding-stations during the winter, have marked the change which comes over them during March and April, and how many could describe their courtship performances?

The most conspicuous feature of a bird's courtship is its song. So much has been written on bird-song, including an article in this Department for May-June, 1920, that we will pass over it with a word. The song-period varies with different species from those, like the Song Sparrow, that commence with the first warm days of early spring and keep it up far into the molting season of August and September, to those, like the Veery and Hermit Thrushes, that seldom waste a song until the females arrive on the nesting-grounds. And these same birds usually cease singing soon after the eggs hatch, though they are often heard from again upon the inspiration of a second brood. Some

birds, like the Meadowlark, the Yellowthroat, and the Ovenbird, have remarkable flight-songs which differ from their ordinary songs, and other birds, like the Black and White Warbler, sing, during the nesting-time, a song radically different from that used during migration. The interpretation of the different songs sung by birds is as difficult as it is fascinating and offers a rare field for



ROBIN SINGING

Song is the most conspicuous feature of the courtship of birds

observation to those who have trained their ears to bird music and their minds to the philosophy of evolution.

The song of a bird is primarily an announcement to the female of the presence of the male and a challenge to other males of his species to keep out of the territory which he is guarding. The male birds ordinarily precede the females on the northward flight, and, arriving on the breeding-grounds, proceed to select the territory in which the future nest is to be built and

over which they exert absolute dominion so far as their species is concerned, unless driven out by a more powerful bird. If any other male of his species dares to intrude, he is immediately driven away. An amusing incident, illustrating this, took place in front of one of my windows, where I maintain a feeding-log, last spring. It seems that a certain male Song Sparrow had decided to have a nest in an adjoining hedge and had been announcing the fact by his cheerful song for several days. Whether he already knew about the feeding-log near the window I do not know, but one unfortunate day he ventured to it, and when he did so, discovered his own reflection in the window. He thought it was another Song Sparrow trespassing upon his territory, and in a fury he dashed into the glass to drive it away. Nor did the fact that the window met him as hard as he met it dampen his ardor in the least. He kept at his task of driving away the other bird all that day and all the next, barely taking time off to eat or to announce to the world that he was still defending the hedge. Indeed, as the days rolled by and he continued to fight his reflection, we grew worried about him and tried every means of discouraging him to no avail. He had discovered that another Song Sparrow claimed every down-stairs window on that side of the house, and he continued to fight. There were so many windows that it gave him little time to eat or to sing, and the result was he had to go without a mate from early in April until the middle of May. When at last a female settled in his territory, he grew less pugnacious and ventured to the windows only a few times each day to make sure that his hated rival did not steal a march on him.



SONG SPARROW FIGHTING HIS OWN REFLECTION

He had decided to nest nearby and so proceeded to drive off all other Song Sparrows—even including his own reflection

With some birds this zeal of the male in the defense of his territory seems to be quite essential, for the female, which accepts him, seems to be much more devoted to his territory than she is to him. Should a stronger male come along and drive away her first lord and master, she accepts the new suitor with perfect equanimity. I have observed this with Robins, Red-

winged Blackbirds, and House Wrens. Indeed, in the case of the Wrens, the victor was already the lord of a household a short distance away, so that he proceeded to preside over two families that season.

Whether the varied songs of birds have any effect upon the females other than to point out a nesting territory which will be guarded, is open to question. Certainly the males of most species have recourse to other methods of hypnotizing the females than merely singing to them, and it is some of these methods that we wish to consider. Before leaving the combats of the males in defense of their territory, however, we ought to mention the 'tournaments' for which some birds, such as the European Ruff, and the Black Cock, as well as our own Prairie Chicken, are noted. With these birds it is quite customary for all the male birds of the neighborhood to assemble on a suitable knoll and engage in sparring matches. The details of what constitutes a victory or just how the females, which usually gather nearby, are apportioned to the winners I do not believe have yet been worked out.

Just as important as the singing and fighting in the courtship of many birds is the display of plumage. Some species have special plumes, wonderfully fashioned and beautifully colored, which are worn only during the breeding-season, and which are seen to advantage only during the periods of courtship; others have large air-sacs which can be distended beneath brilliantly colored skin; while still others, which can claim but little by way of adornment, display whatever they have in some curious way.

Of the birds which have special plumes to display, the Peacock is perhaps the most familiar. The greatly elongated, eyed feathers which are ordinarily spoken of as the 'tail' are in reality the upper tail-coverts, the real tail of ordinary stiff blackish feathers being entirely concealed. It is interesting to watch a pair of these gorgeous peafowl on a spacious lawn and see with what deftness the male displays his charms to the female. They may be walking quietly side by side when one's attention will be attracted by the rattling of quills as the male shakes out his feathers and prepares to spread them. A few quick stiff-legged steps brings him ahead of his consort and then, with a beautiful sweep of his long 'tail,' he wheels in front of her and at the same instant lifts and spreads the most beautiful fan that nature has ever conceived. It is no wonder that he is venerated by the inhabitants of his native jungle.

The Peacock belongs to the Pheasant family, the males of all of which are noted for their brilliant plumage and their curious displays. The display of the Golden Pheasant, a native of western-central China and conspicuous in every aviary, is shown in the accompanying photographs. Even when at rest he is a gorgeous bird with his scarlet breast, his brilliant yellow back bordered by red, his emerald-green shoulders, his bright orange cape banded with purple, his silky yellow crest, and his long flowing tail. But when, like the peacock, he takes a little run ahead of the female, spreads his fan-like cape, apparently shifting all of his brilliant feathers to her side of his body, and opens his arched



GOLDEN PHEASANT

Normal pose. The specialized feathers of the cape and tail are relatively inconspicuous

tail, splashing it with the red of his upper tail-coverts, one wonders how his somber-colored mate can ever resist. His brilliant yellow eye gleams over the top of the cape, but it gets no response from her, for she either appears perfectly unconcerned or she dodges back without so much as giving him a glance. The display of the Lady Amherst Pheasant is very similar, but the numerous other species have each their characteristic courtships which are easily watched in an aviary or on a game-farm. I was once fortunate enough to watch a wild Ring-necked Pheasant displaying before its mate. He began by pecking the ground as if to attract her attention and then followed a little stamping. With his head still down, the wing toward the female was lowered to the ground carrying the spotted flank feathers with it. The tail was then spread and the back feathers shifted, as in the display of the Golden Pheasant, until the picture which was presented to the female was that of a perfectly gorgeous shield, almost heart-shaped, the iridescent bars and spots making a beautiful pattern on an orange and maroon background.

The display of our native Ruffed Grouse is no less interesting though less brilliant. As illustrated in the photograph, both wings are drooped to the ground and the fan-like tail is lifted as with the more gorgeous peacock. The iridescent black ruff feathers which normally lie almost concealed on the side of the neck are then lifted until they make a perfect circlet into which the head fits, like an extreme Elizabethan ruff. The cock bird struts beside the hen until the spirit moves him to enter into the final spasm. He begins then to shake his head from side to side, uttering short, hissing sounds with each twist. Finally, with a short, quick run, he gets in front of the female, and, shaking his head so rapidly that the ruff is but one continuous iridescent blur, he turns quickly, stiffening his legs and turning his tail laterally so that she

will get the full benefit of the climax of his effort. At the same time, his short notes that have kept time with the shaking of his head grow into one loud prolonged hiss. The accompanying photograph shows a captive bird at about the middle of the display period. This strutting of the Ruffed Grouse is quite apart from the drumming which was so well described by H. E. Tuttle in BIRD-LORE for May-June, 1920. The drumming takes the place of song, and is the announcement to the females and other males that the cock is ready to defend his territory. The strutting is the display, ordinarily intended for the benefit of the female, though often indulged in in a half-hearted manner when no female is present. The tame Grouse in the photograph, however, had no mate and used to display for almost any visitor, male or female.

Some of the most elaborate displays of nuptial plumes are those of the Birds-of-Paradise which may frequently be watched at the larger Zoological Parks. During the past year there has been on exhibit at the New York Zoological Park, a Blue Bird-of-Paradise, which surprised even the most experienced aviculturists by the unusualness of his display. For, instead of hopping up and down on his perch and erecting his plumes into a beautiful cascade as was expected of him, he hung upside down from his perch and shook out his long flank feathers until he formed an exquisite azure lyre with a dark maroon center.

Lest it be thought that only foreign birds or birds with unusual plumes or brilliant colors display in an interesting way, mention should be made of the curious effort of the Cowbird, a plain little black bird with a brown head. So far as colors go he has nothing to boast of, and when it comes to his abominable practice of parasitizing smaller birds, the less said here the better. But, for a



GOLDEN PHEASANT

The full display. All the specialized feathers used

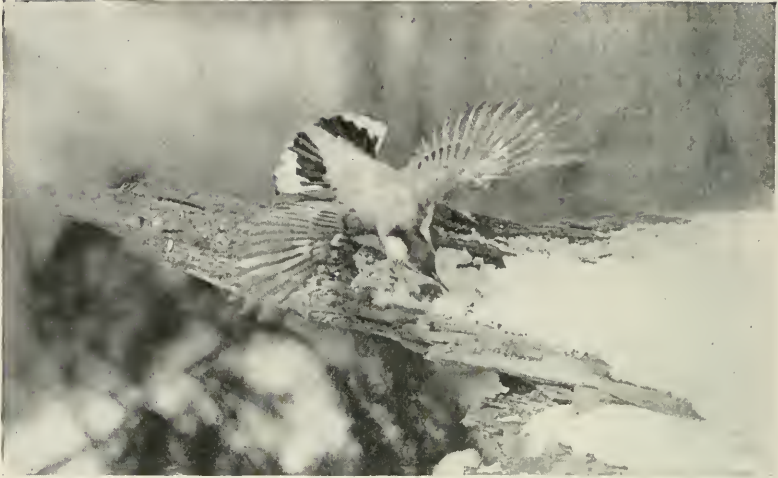
plain little bird, he certainly makes a supreme effort at a nuptial display. Cowbirds are very easily watched because they are often in small flocks and take delight in sitting in the exposed tops of trees where, early in the season, they are quite conspicuous. The juxtaposition of another Cowbird, male or female, starts one off. He points his bill toward the zenith and compresses his feathers, looking like a broken stick. The next moment, however, the feathers all over his body stand on end, he spreads his wings and tail, and with a shrill



RUFFED GROUSE STRUTTING. (A BIRD RAISED IN CAPTIVITY)

hissing whistle he falls forward with quivering wings as though he had suddenly been taken with extreme nausea. So far forward does he fall that he often has difficulty in regaining his balance.

The display of the White-breasted Nuthatch is less often observed but is no less interesting because, in addition to showing every feather that he owns to advantage, he has the cute little trick of making a present of food to the female. This is what happens at my feeding-station every year when the warm days of early April start the buds to swelling. Together the two Nuthatches come to the tree nearby, uttering low conversational notes, the female almost coy in the way she follows the male and edges away when he comes too close. Suddenly the male swoops to the food-shelf, seizes a sunflower seed, and is back to the waiting female with scarcely a pause. With wings and tail spread and feathers fluffed, he presents the tidbit to her as though it were a choice bouquet or a box of chocolates. Occasionally he pauses at the



WHITE-BREASTED NUTHATCH DISPLAYING

In this case it was to drive another bird away from the feed

food-shelf long enough to remove the seed coat from the seed so that it will be ready to eat, but this is by no means a regular part of the ceremony. The display of the little Chickadee is very similar, though apparently with less bravado, for his is a different nature.

But the courtship of birds is not complete with song and fighting and display. There are many birds which supplement their displays with curious evolutions in the air, with what well might be called dances, and with other performances that will have to be called 'antics' for want of a better word. The European Skylark and our own Horned Larks mount high in the air, and, after hovering and singing for a few moments, close the wings and drop like stones to the earth, catching themselves when only a few feet from the hard ground, and saving themselves from apparent destruction. The Woodcock, as dusk falls, mounts, likewise, high in the air and then zigzags back to earth on set wings producing a winnowing sound by the wind rushing through his attenuated primaries. The Wilson's Snipe gathers momentum as he sweeps high over the marsh and has seemed to me to turn over on his back while on set wings, producing a somewhat similar sound to that of the Woodcock, supposedly by the air rushing through the spread tail-feathers. The Marsh Hawk 'loops the loop' over the spot in the marsh where the female is perching, sometimes making several loops in succession, like gigantic somersaults. The ecstatic flight-song of the Ovenbird is no less thrilling, though, because it is given most often in the dead of night, the singer is seldom seen when he leaves his lowly roost and mounts high over the trees, pouring forth a melody so different from his ordinary song of '*teacher-teacher-teacher*' that one would never guess its composer were it not for the fact that as it falls back to the trees it finishes with its customary notes.

The promenades of the Cayenne Lapwing of South America, the clustering and waving of wings of the flocks of Jacanas on the tropical marshes, the dances of the Cranes and the Albatrosses are all examples of courtship performances, or at least undoubtedly had their origin as such, though they are today often indulged in at other times. Space will not permit of their description here, and, after all, they are perhaps less interesting than the actions of our more familiar birds. Enough has been said to indicate the sort of thing to look for and the greatest pleasure and the greatest good will come from making an original discovery of the courtship of some common bird. Make a point of watching a pair of Flickers and try to describe their interesting courtship. Robins, Song Sparrows, Grackles, Redwings, Hummingbirds, practically all of our commonest species, will take on a new interest when one becomes absorbed in trying to observe their complete display. Young eyes are as good as old ones, and if their experience in life is less, perhaps the descriptions will be that much freer from human interpretations.

SUGGESTIONS

1. Name the four principal ways in which the courtship of birds is performed.
2. What is the function of birds' songs?
3. Name ten birds that are singing when they arrive from the South in the spring.
4. Name five birds that do not often sing while migrating.
5. Name five birds that you have heard give flight-songs. Do these songs differ from their regular songs?
6. What species of birds have you seen fighting during the courting period?
7. Do birds seem more pugnacious to birds of their own species or to other kinds during the nesting season?
8. What birds have you seen pecking at windows? Why do they do it?
9. What birds of your acquaintance have special plumes for display during their courtship? Where are the plumes located and how are they used?
10. Where do the 'aigrettes' that formerly adorned women's hats come from? What is their rightful function?
11. Describe the outstanding feature in the courtship of the following birds: Peacock, Golden Pheasant, Ring-necked Pheasant, Ruffed Grouse, Prairie Chicken, Cowbird, Nuthatch, Flicker, Chickadee, Woodcock, Wilson's Snipe, Marsh Hawk, House Sparrow.

SUMMER BIRD STUDY

This summer a great many teachers and others will take advantage of their summer vacation to go to summer school at some one of the colleges or universities, that offer summer work. Bird-lovers will do well to refer to the issue of BIRD-LORE for May-June, 1921, where descriptions of various summer courses for the study of birds given at the different summer schools are listed. So far as known, the courses this summer will be the same as last, with the exception that a few other colleges that are not listed will undoubtedly offer some bird-work. Word has been received from T. L. Hankinson, for example, that a course on 'The Birds of Michigan' will be given at the Michigan State

Normal College, at Ypsilanti, Mich., from June 20 to August 4. A course on birds and mammals is being given now, April 3 to June 16.

Before deciding definitely on any particular summer school, one should write to the secretary of the summer school in question and inquire if any bird-work will be offered. Even though one is planning to do other work at the summer school, it is often feasible to take a course in bird-study as well. Many enduring friendships with persons of kindred tastes are often started in these summer bird-courses.

FROM YOUNG OBSERVERS

BOY SCOUTS AND THE BIRDS

How often we hear our grandfathers say, "In my day I used to see such and such a bird, but they are all killed off now." Today, many species of birds are rapidly disappearing—some to satisfy a man's craving for sport, and some to satisfy a boy's craving for fun. Sport and fun literally murder thousands of these creatures annually. But why does the human race kill these birds? Because their practical value to mankind is not realized. God sent these winged creatures upon earth for some purpose, and that purpose was not to make them the prey of man. But the prey of man they have become and are being slaughtered unmercifully. Almost all have become their enemies. But in the midst of all this there arises an organization that is seeking to protect these helpless birds against the injustice and oppression of man. That is the organization which is founded on the belief that its members must do a "good turn daily." That is the organization which is going to build the citizens of tomorrow. This organization realizes that it is its duty as boys of today to help to save as many as possible of these winged creatures for the boys of tomorrow. They realize the value of these birds, and realizing this, know it is their duty to protect them. This organization is the Boy Scouts of America.

One of the main factors all through the history of this organization has been their fight to preserve the gifts of nature. They have taken especially great interest in birds. The boys of this organization have put up bird-boxes, food-tables, etc., in an effort to preserve the birds. Go to a Boy Scout camp and you will find numerous bird-boxes and food-tables. The Boy Scout studies the birds, finds out their relationship and value to man, and inevitably seeks to protect them. The man or boy who kills them is not a Boy Scout. They know nothing of birds, and this ignorance results in the killing of these creatures. The Boy Scout seeks to protect birds by helping to enforce the law regarding them. He does not kill the birds to study them. He studies them by close observation. A Boy Scout bird student is more often seen than heard. His weapons are not the gun. They are an opera glass, a pencil and a field notebook. He is the observer, not the hunter.

The Boy Scouts are doing a great deal in preserving our wild bird life and in so doing are rendering a great service to the world. Though they are only boys of America, the Boy Scouts are in deed and in truth, citizens of the world.
—CHARLES SCHOTTLAND, Troop 65, *Los Angeles, Calif.*

THE RED-WINGED BLACKBIRDS

A pair of Red-winged Blackbirds nested last summer in a swampy place near our garden. When mother and I were in the garden the male would sit on the raspberry bushes and sing. If we came toward the swamp he would cry '*chip, chip.*' This is the way he warned his mate when danger was near.

At night he roosted in the bushes. One morning we found him dead under them. He had eaten the poisoned corn that we had put in the garden for the gophers. We missed his cheery song and we wondered if the little widow would feed the baby birds.

Awhile after this when we went down to the nest, two baby Blackbirds were in it. They were big and fat and almost ready to fly. We went down again and all we found was the nest and one egg. Then we took the egg and the nest home. It was a pretty thing. It was cup-shaped, made of grass and was fastened to the rushes. They had blossomed and had made an umbrella for the little birds. The egg was bluish-white with black spots.

I know 68 birds, over a hundred flowers, and 30 butterflies and many insects. Last summer mother and I found 22 different kinds of bird nests.—
LIDA HODSON, (age 9 years), *Anoka, Minn.*



GREEN-WINGED TEAL

By T. GILBERT PEARSON

The National Association of Audubon Societies

EDUCATIONAL LEAFLET NO. 108

Of all the forty-three kinds of wild Ducks that have been recorded in North America, the Teals are the smallest. There are three of these, all named from peculiarities of their markings. Thus we have the Blue-winged Teal, Green-winged Teal, Cinnamon Teal, and, rarely, the European Green-wing. The Cinnamon Teal is confined almost wholly to the western three-fifths of the Continent, while the other two range largely throughout Canada, the United States, Mexico, Central America, and the West India Islands.

In attempting to give an idea of the actual size of these little wild fowl one might say that the Green-winged Teal, for example, is about 14 inches in length, and, when its wings are spread to their greatest capacity, the distance from tip to tip is about 23 inches. As is the case with most wild fowl, the male is much more brightly colored than his mate. Both are extremely attractive, however, the softness of their plumage, the alertness of their manner, and the wildness of their usual surroundings all tending to render the species particularly fascinating to students desirous of spying upon their movements.

The summer home of the Green-wing is in the northern border states of the United States and northward through Canada. The nests are made on the ground in the vicinity of fresh-water ponds, sloughs, or marshes, to which the young are led for food and shelter almost immediately after hatching. The site chosen for the nest usually is well screened by a clump of grass or weeds where the brooding parent becomes, in a measure, invisible from the eye of a passing enemy. When it becomes necessary to leave the nest for a short period, the eggs are completely covered by feathers and down that closely encircle the eggs. This soft covering not only keeps the contents of the nest warm, but in many cases must prevent discovery. These feathers are picked from the belly and lower breast of the parent and tucked about the eggs to be used for the very purpose just mentioned.

The eggs are creamy buff in color and in size are about 1.75 by 1.30 inches. When hatched, the young are entirely covered with a thick, fluffy down, grayish and brown in color. The troubles of life begin for the young Teal the moment they first see the light of day, for Hawks, weasels, skunks, foxes, and many other enemies are on the lookout for these dainty tidbits, and many perish even before they reach the shelter of the reeds along the margin of the pond to which the parent quickly conducts them. Even here they must keep in very shallow water, otherwise turtles, pickerels, and other ferocious creatures may seize and drag them beneath the water. Even along the shores, snakes are on the lookout

for little baby Teal, and rare indeed must be the family all the members of which survive to fly away to the South on the approach of autumn.

John James Audubon, the illustrious American naturalist who just one hundred years ago was in the midst of his most active field-work, thus sets forth some of his observations regarding the life of this interesting bird:

"The Green-winged Teal is a fresh-water bird, being rarely met with in marine bays, creeks, or lagoons, where, however, it may sometimes spend a few days. It is accordingly enabled to feed with its body half immersed, in the manner of the Mallard and several other species, for which purpose it is furnished with a comparatively long neck. Its food consists principally of the seeds of grasses, which are collected either when floating or when still adhering to their stalks, small acorns, fallen grapes or berries, as well as aquatic insects, worms, and small snails. I have never found water lizards, leeches, fishes, or even tadpoles in their gizzards.

"The food of this bird being thus more select than that of most other Ducks, its flesh is delicious, probably the best of any of its tribe; and I would readily agree with any epicure in saying, that when it has fed on wild oats at Green Bay, or on soaked rice in the fields of Georgia and the Carolinas, for a few weeks after its arrival in those countries, it is much superior to the Canvas-back in tenderness, juiciness, and flavor. Indeed, the Green-wing is as much superior to the Canvas-back, as the European Quail is to the Capercailzie, or Sora of the Delaware to the Scolopaceous Courlan of the Florida everglades.

"On land, the Green-wing moves with more ease and grace than any other species with which I am acquainted, excepting our beautiful Wood Duck. It can run at a good rate, without entangling its webbed feet, as many others do; and in this, too, there is a marked difference between fresh-water and salt-water Ducks, as one may very readily perceive. On the water, also, it moves with great ease, at times with considerable rapidity, and when not severely wounded, is able to dive in a very creditable manner. On wing it has no rivals among Ducks. Our two smaller Mergansers, however, are swifter, although they exhibit none of the graceful movements every now and then shown by the Green-wings, when coursing in the air over and around a pond, a river, or a large wet savannah. They rise from the water at a single spring, and so swiftly, too, that none but an expert marksman need attempt to shoot them, if when starting they are many yards distant. While feeding, they proceed in a close body along the shores, or wherever the water is so shallow that they can reach the bottom with ease.

"In savannahs or watery fields intersected by dry ridges, they remove from one pool to another on foot, unless the distance is considerable; and in effecting the transit, they run so huddled together, as to enable a gunner to make great havoc among them. When the cravings of hunger are satisfied, they retire to some clean part of the shore, or a sand-bar, where they rest in perfect harmony each individual composing its dress and afterwards, with wings slightly droop-

ing, placing its breast to the sun. There they remain for an hour or more at a time, some sound asleep, some dozing, but rarely without a trusty sentinel watching over their safety. In this manner they spend the winter months in the Southern and Western Countries. There, indeed, they are far more abundant than in our eastern districts, just because the climate is milder, the human population more dispersed, and the damp fields, meadows and savannahs more abundant."

Audubon's reference to the habit which the Green-winged Teal often exhibits of flying in compact flocks has long made the bird the joy of the pot-hunter who may be interested in the number rather than the size of the Ducks he may secure. When the gunner in his blind sees approaching through the air a flock of Teal, often ranging from twenty to forty individuals, he may well feel that here is a possibility of securing half a dozen or more by the single discharge of his weapon. However, when the birds approach within range, and the fowler rises to shoot, if for a moment his head is exposed above the blind, instantly the flock scatters and he is fortunate if he wings a single bird.

While feeding they often collect in such compact bodies that it is difficult at a little distance to see the water between them. Some weeks ago the writer had the opportunity of observing a flock of Teal at frequent intervals during a period of many days. This was in the semi-arid country of South Texas. For many miles the only water available was a pond of perhaps eight or nine acres caused by the overflow from an artesian well. Upon approaching the pond it was not difficult, by a little search with field-glasses, to locate the Teal. Generally they were feeding in shallow water close along the shore. One day, taking advantage of some intervening bushes, I was able to crawl within 100 feet of eleven Teal that were thus engaged. In gathering their food the birds would tip up with their tails pointing upward and with but a small portion of their bodies exposed to view. It occurred to me that in the event of danger these birds, whose heads were under water, might not be aware of their peril in time to escape. Suppose a Hawk sailing low over the bushes should make a dash for the flock. What chance would there be for those whose heads were submerged to learn of their danger in time to escape? Those with heads in the air would see it coming and could, of course, get away, but what about those that could not see? I decided to try the experiment, and at a time when seven of the heads were down and only four pairs of eyes were on the watch, I made a dash from my cover. With the quickness of thought every bird was on the wing. I could not tell but what those that were feeding got under way just as quickly as those that were alert and watching. How was the signal given to the birds whose heads were down, and how was it physically possible while in this attitude for them to spring into the air as quickly as the birds that were sitting on the water? I have no solution to this problem—I only know this is what happened.

Many years ago I saw a wounded Green-winged Teal behave in a manner

that greatly interested me. I was too young to carry a gun but trailed along behind a hunter who graciously allowed me to wade into the marsh or pond to secure an occasional bird that he shot. A small flock of Green-winged Teal came along. He fired into it. A handsome male dropped out and fell into a pond thickly grown with vegetation, which from the bottom came close to the surface of the water. The moment the Teal struck it disappeared. It was easy to determine the exact spot so I waded out and looking down into the water saw it holding to the stem of a submerged plant, its tail pointing upward toward the surface. Lifting it in my hands, the plant came up, still tightly clasped in the bird's beak. I have been told by hunters that they have known wounded Teal to dive and hold on in this manner until they perished for lack of air.

As already intimated, the Green-winged Teal is an inhabitant of fresh-water ponds and small lakes. Swift-running streams, so much beloved by Mergansers, have little attraction for them, nor do we often meet with them on the open waters of large lakes, except when in an effort to escape persecution from hunters the birds will sometimes seek open reaches to rest during the hours of daylight. Here, at such times, they will remain until the friendly cover of darkness again invites them to return to their feeding-grounds. Sometimes they are seen in coastwise bodies of water, but not often, for the Teal can in no sense be truthfully considered as salt-water Ducks.

By no stretch of the imagination can the notes of our wild water-fowl be considered musical, and the Teal is no exception to this general statement. Eaton states that the male has a "mellow whistle," but frankly admits that the call of the female is merely the conventional quack of the typical Duck.

The Green-winged Teal is one of the earliest Ducks to arrive, in autumn, on the southern feeding-grounds, and, on the other hand, is one of the last to retire north in spring. The flight is rapid and is usually direct in passing between two given points. This statement, however, will not hold true when a flock is flying about a marsh for exercise or because it has been disturbed by gunners. On such occasions the birds will turn and twist in a most bewildering manner.

This species is very numerous, and although the bird is constantly persecuted by hunters, there is little reason to doubt that with the protection it is now afforded by state and Federal laws, and by an awakened public conscience, it will long continue to grace our inland waters.

The Audubon Societies

EXECUTIVE DEPARTMENT

Edited by T. GILBERT PEARSON, President

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\$5 annually pays for a Sustaining Membership
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FORM OF BEQUEST:—I do hereby give and bequeath to the National Association of Audubon Societies for the Protection of Wild Birds and Animals (Incorporated), of the City of New York.

NOTES ON THE EGRET SITUATION

In May, 1921, the writer made a brief survey of a portion of the Florida Heron and Egret colonies in which we have for some time been interested. Those visited, seventeen in number, are situated in the counties of Levy, Alachua, Bradford, Putnam, and Marion.

Eight years ago a trustworthy agent advised that Egrets could be found in all of these, and a few years later the writer verified this report in a number of instances. The Association has been employing guards each spring to protect these breeding-places, seven men having charge of the seventeen colonies.

It was a great disappointment to find last year that Egrets remained in only two of them and the other species of Herons, viz., Louisiana, Little Blue, and Black-crowned Night Herons, chiefly, had become greatly reduced in numbers. Some of these places that a few years before contained at least a thousand birds of various species, were now found to be the nesting-home of less than fifty individuals, and in some cases not half this number were present. One of the two colonies that contained Egrets, viz., the rookery situated at Micanopy in charge of S. Elliott Bouknight, had *only one* Snowy Egret, al-

though a few years ago I found a number of representatives of this species, as well as the large Egret inhabiting the place.

The only other place where Egrets were found in numbers was on Bird Island, Orange Lake, Alachua County. This is a bird reservation, or sanctuary, made so by the Association years ago when we purchased the Island, and have since carefully guarded it during the breeding season. It is in charge of M. N. Gist, of McIntosh, and the \$200 paid him annually for looking after the birds during the three months they inhabit the Island has for some time past been graciously provided by one of our loyal members, Mrs. Charles Douglass. Warden Gist lives and has his place of business within a mile of the Island, and from his wharf could readily see anyone who approached the nesting birds. Furthermore, he and his employees are continually on and about the lake, which is very large and affords a considerable portion of the feeding territory used by the birds. Because of this latter fact, the Orange Lake colony has fared better than any of the other rookeries in central Florida.

The only other Florida Egret colony that we guarded in the year 1921 is located in St. Lucie County. Warden L. Ashburner was

in charge. In his report of the birds resorting there last year he estimated that the following species were present in the numbers given: Snowy Egrets, 200; Little Blue Herons, 1500; White Ibises, 1,000; and a few Ward's Herons.

The birds in the other colonies mentioned have been shot on their feeding-grounds. Usually they come together for nesting purposes in some pond in the swamps or thick woods, from which place they fly to prairies and lake-shores over regions many miles in extent. It is here and not in the rookeries that the birds had been killed. We had not the means to protect their feeding-grounds so the birds had to succumb, not simply to the plume-hunters, but chiefly, it is believed, to the guns of the thousands of tourists that now travel by automobile and camp through Florida in winter.

These birds have a natural enemy in the form of the Fish Crow. These black nest-robbers stay about the colonies and the moment the eggs are left exposed by the departure of a parent bird they slip in, seize an egg each, and fly away. I have personally seen Fish Crows do this on dozens of occasions and under nearby trees have found scores of broken egg-shells.

With men killing the birds on the feeding-grounds, and the Crows stealing their eggs from the nests, the species cannot survive, and the Heron family is rapidly approaching extermination in central Florida.

Following this field-work I proceeded to Leesburg in Lake County. Securing a small boat, I crossed Lake Griffin and went down the Oklawaha River to the St. Johns, a distance of perhaps 175 miles. Among the upper reaches of the river four colonies of water-birds were found, the most numerous species being the Water Turkey. In one of these, on Lake Griffin, numerous Florida Cormorants were nesting. All of them contained Ward's, Little Blue, Louisiana, and Black-crowned Night Herons. In not one of these rookeries was a white Egret of either species observed, only one or two large Egrets were seen during the entire course across the lake and down the river, and not one Snowy Egret was observed.

In addition to the above, the Association, last year, guarded three colonies of Herons,

including Egrets, in Louisiana, one in South Carolina, and one in North Carolina. On Orton Plantation, near Wilmington, N. C., there is another colony of Herons containing both species of Egrets. I have visited this place frequently at intervals since first discovering it in 1898. This is carefully protected by Mr. James Sprunt, a member of the Association.

Another of our members, E. A. McIlhenny, has a colony in a pond near his house at Avery Island, La., which he is personally responsible for having built up to its present large proportions. Snowy Egrets breed here, possibly to the extent of a thousand pairs, and constitute the largest group of this species in the United States of which we have knowledge at the present time.

In May, 1921, I spent some days as the guest of Andrew Carnegie, 2d, on Cumberland Island, Ga. This is the most southern of the Georgia islands and has been a bird and game preserve since it came into the hands of Mr. Carnegie's father, Thomas M. Carnegie, about forty years ago. At the time of my visit numerous Snowy Egrets and large American Egrets were seen, but owing to the low water in the pond where they ordinarily nested, they had that year taken up their abode farther back in one of the island swamps which Mr. Carnegie regarded as inaccessible and which we therefore had not the opportunity to explore. There is no doubt however that there are a considerable number of both species of white Egrets breeding here and as the Carnegies protect the entire island which includes the feeding territory of the birds, the prospects for the continued welfare of them is indeed bright.

The Present Season

Last year the outlook for the future of the white Egrets in eastern United States seemed discouraging. After twelve years of earnest effort on our part it looked as though we had been fighting a losing battle and there appeared to be no chance of ever bringing back these marvelous birds to anything like their former numbers. The Association's tremendous success in guarding Gulls and Terns along the Atlantic Coast evidently was not

to be repeated in the case of the Egrets. However, this year conditions look somewhat brighter, although the news from Florida continues to be discouraging. This state, once the home of countless thousands of Egrets and Herons, still continues to be the worst slaughter-grounds for water-birds in the United States, and the Florida Legislature also continues to exhibit a primitive mind on the subject of wild-life conservation and refuses to establish a State Bird and Game Commission to enforce its laws regarding wild-life protection.

Following is a letter from B. J. Pacetti, the one United States game warden operating in that state. He and J. M. Jackson, a warden employed by this Association, recently visited a large number of places where Herons and Egrets were supposed to breed in the eastern part of the peninsula of Florida. His report shows something of the situation regarding these colonies and gives interesting side-lights on the conditions under which one operates in field-work in connection with locating breeding-places of these birds.

"I beg to say that I returned last night from a three-day trip with Audubon Warden J. M. Jackson to the several Egret rookeries in Volusia County and one in the edge of Brevard County, and am compelled to say that I find a very unusual condition as my experience goes in these matters.

"We visited seven well-known places where Egrets have heretofore nested and raised young, but I find that there is absolutely not a bird in any of them, except the one known as the Clifton Lake rookery. Approximately four hundred large Egrets came in there every evening to roost, but not a sign of a nest or any preparation to make a nest, and yet the place is covered with shedded feathers and there was a considerable number of shedded plumes on the ground around there.

"On the afternoon of April 16 we got in the rookery at 5.30. At that time there was not a bird in sight except several Night Herons, but about 6 p. m. they began to come in and from that time until it was so dark we could not distinguish what birds they were, they were still coming in. Even after it was entirely dark we knew by the noise that there were others coming. The next morning we left camp before daylight and were in the rookery just at light and the birds began to leave. By the time the sun was up there was not a bird in the rookery. They left as they came in every direction, which proves to me

conclusively that these birds gather to this rookery from all over the county or at least the southern end of it.

"I found the birds gentle, paying but little attention to us as we sat near the rookery watching them, which would show they had not been disturbed, but for some reason they did not act to me as if they had any idea of nesting for some time.

"There was no water in the country, only in the larger lakes, and every little water-hole in the swamps had several Egrets feeding in it.

"We went to what is known as Island Lake rookery. It is four miles south of Maytown and is an island in the middle of a small lake. It was a sight to see the White Ibis and Little Blue Herons that were in there, and which were, I presume, nesting, but we did not go on the island as I had no boat and could not find the one that was there as it was hidden in the swamp where we could not find it.

"We then went to what is known as Buck Lake in the edge of Brevard County, which is quite a large lake and has an island in the center of it. Here I saw a great many birds of all kinds except Egrets.

"On the morning of the 19th we left camp just at light and went to a point near the Clifton Lake rookery and saw the birds all leaving, and continued on to a rookery in Hell's Half Acre country and saw but few birds as it was all dried up. We then went to Buzzard's Roost rookery and there found a large colony of Wood Ibis nesting, as well as several big Blue Herons. We then crossed at Cow Creek ford where there is always so much water that it is almost impossible to cross with a car. We did not find enough water to put in the radiator of my car, in fact it was dusty dry. From Cow Creek we went to what is known as the Prideau Lake rookery and found quite a large colony of big Blue Herons around there, but nothing else, and this, like most other places, was dry, all the water having dried up.

"We crossed Spruce Creek Swamp twice on foot and did not get wet nor could we find any place where there was water enough to drink, and as a rule the water is four feet deep all over these swamps and every water hole is alive with moccasin snakes of which I am sure we killed fifty.

"All these lakes that I have mentioned where there are rookeries are way back in Spruce Creek Swamp and are surrounded by the most awful jungle of cypress and by briars of all kinds, and a person going in has to know the country well and then almost crawl in to these places.

"Jackson is camped at the Cow Pen Islands and has a very comfortable place. It is the only place in the entire section where he could get water as the cattlemen have a well that is 180 feet deep and which has very good

water. I saw no signs of anyone having been in that section for the past two weeks and don't think anyone will attempt to molest the birds while Jackson is in charge of them.

"It is a sight to see the amount of game in the section that I have just been in, and you can be in Jackson's camp and hear Wild Turkeys gobbling in every direction. On Tuesday morning two large wild gobblers came right by his camp, and I saw several doe deer and fawns around the saw grass, besides the country in the swamps is cut up with deer tracks. There are also many bear and panther in that section.

"I have gone over the situation of bird protection thoroughly with Jackson and feel that he will do everything possible to guard these birds and get good results. I believe that the birds that are now going to the Clifton Lake Rookery will eventually nest there if not disturbed.

"I have advised Jackson not to have any set time to come in for supplies as someone may be on the lookout and might know when he left his camp and attempt to shoot the birds when they came in. I have further advised him not to leave his camp nor to get far away at any time if he has any idea there is likely to be anyone around. I have further arranged that in the event that he should not show up within a week or ten days, that his son, A. L. Jackson, shall go to him and see what is the trouble.

"I have every confidence in Jackson as a warden and fully believe he will give entire satisfaction as he has always done when employed by the National Association."

On the Sea Islands

Strung along the coast of the state of Georgia there are a number of islands exquisitely beautiful and extremely interesting. Brief mention of one of these was made above, viz., Cumberland Island. Another one further up the coast is Ossabaw owned by Strachan & Co., of Savannah. On April 12, 1922, as the guest of H. B. Skeele, President of the Savannah Audubon Society, and accompanied by Mr. Dixon, representing the owners, I visited this 30,000-acre game-preserve. Here in a pond, estimated to contain fifteen acres, was a magnificent colony of Herons containing Little Blues, Great Blues, and Black-crowned Night Herons. Some Least Bittern, forty Water Turkeys, and other water-birds were observed. The colony also includes a wonderful group of Egrets. Mr. Dixon and the writer counted about two

hundred at one time. This was the beginning of the nesting-season and many Egrets had not yet arrived. Furthermore, the observation was made near the middle of the day and many of the birds were away feeding. Probably a thousand Egrets are nesting here this summer. About three-fourths of them are of the larger species.

On April 13, we visited St. Catherine's Island, the northern end of which lies about a mile below the southern end of Ossabaw. This is owned by the Rauer's Estate. Like Ossabaw it is protected at all times from the ravages of gun-fire, except during the winter months when wild ducks, deer, and an occasional Wild Turkey are taken. Here, on a pond covering about five acres, were perhaps one-quarter as many Egrets and other water-birds as were found in the colony on Ossabaw. Both of these rookeries are carefully guarded, and as the owners also protect the feeding-grounds of the Herons and Egrets, there is a splendid chance for saving them through the years.

On April 14, the writer visited McClellandville, S. C., and, in company with L. A. Beckman, superintendent of the Santee Gun Club, inspected the Egret rookery in the rice-reserve pond on this old plantation. The breeding-season had but recently started and no young birds were in evidence, but scores of Egrets were seen sitting on their nests in cypress trees as we passed in our boat nearby. We estimated the number of occupied nests anywhere from 300 to 500. The birds were so tame that they often lighted within 50 to 60 feet of us. The Santee Gun Club has protected this colony for many years and has also extended protection to the Egrets on their feeding-grounds. This organization some months ago decided to abandon the rookery with a view of economizing, and H. T. Fleitman, treasurer, so advised this office, thinking perhaps we might take up the burden which they had been carrying for many years. During my visit, arrangements were made for two men to guard the Egrets the present season.

Another interesting fact is that E. B. Whitehead, United States Game Warden, located at Thomasville, Ga., has recently discovered two very fine colonies of Egrets in

the neighborhood of Tallahassee, Fla., and arrangements were at once made with him to employ two guards for the Association to take care of the birds the present year.

R. D. Camp, of Brownsville, Texas, is protecting our famous Green Island rookery in Laguna Madre.

The effort to save these exquisitely beautiful white birds in our southland has been a long, hard fight, but prospects for ultimate success seem decidedly brighter now than they did a year ago.

Milliners Against Sale of Plumage

The following letter has been issued by Rufus Davis, representing the Millinery Chamber of Commerce of the United States. This is a body with whom the Association coöperated last fall in bringing before Congress the desirability of making it illegal to sell in this country the feathers of birds that have been smuggled in violation of the law.

This Millinery Chamber of Commerce is composed of a large number of the most reputable millinery houses in the country. Many of these companies fought the Audubon Association for years in our attempt to get laws to prohibit the sale of feathers, but once the laws were written on the statute books, the firms represented in the Millinery Chamber of Commerce, being directed by honorable men, felt that they should be upheld.

"To the Members of the Millinery Chamber of Commerce

"Your attention is called to the new Tariff Act now before Congress, paragraph 1419 of which reads, in part, as follows:—

"Birds of Paradise, Aigrettes, Egret Plumes, and the feathers and parts of Wild Birds, the importation of which is prohibited by the Act of October 3, 1913, would be deemed to have been unlawfully imported after the passage of the above Act wherever found except when in actual use for personal adornment or for scientific or educational purposes. The burden of proof to establish lawful possession would be upon the holder when such articles are proceeded against in forfeiture proceedings.

"In other words, the possessor must prove conclusively to the representatives of the Government that the identical plumage in his possession, the importation of which is prohibited by the Act of October 3, 1913, was imported prior to the passage of the last-mentioned Act, and failing to do so to the satisfaction of the Government, the merchandise will be confiscated.

"*Aigrettes*. In this connection the Millinery Chamber of Commerce wishes to state clearly the status of Aigrettes. The importation of these goods is prohibited by law, and the purchase and sale are forbidden by the Federal Migratory Bird Law and also by the laws of most of the States of the Union, and therefore the article cannot be legitimately dealt in in the United States.

RUFUS DAVIS,
Chairman, Plumage Committee
Millinery Chamber of Commerce."

ACTIVITIES OF AFFILIATED SOCIETIES

Some time ago the Hamilton (Ontario) Bird Protection Society, through its local postmaster, secured permission from the Dominion Government to use a cancellation stamp in the post office at Hamilton bearing the legend "Protect the Birds and Help the Crops." On all mail matter, therefore, issued from the post office at Hamilton during the month of May this stamp was used. Mr. Robert H. Merriman, father of R. Owen Merriman, President of the Society, writes that this was accomplished by an expenditure of \$15 on the part of the Society, this being the amount required to make the die.

Our bird friends in Hamilton have been very active the past year, holding lectures, bird-walks, and organizing Junior Audubon Clubs in the schools. Miss Ruby R. Mills, the secretary, from her position in the Public Library, comes constantly in contact with the young people of the city. She is an indomitable worker, and has much to do with the widespread interest in bird-study manifested in the schools. A bird-box contest the past spring was a noteworthy one. Many useful boxes were constructed and erected. The Society is also endeavoring to secure official action in establishing a bird-reserva-

tion on an extensive marsh near the city which at the present time is constantly shot over.

The Savannah (Ga.) Audubon Society, under the energetic and resourceful leadership of H. B. Skeele, is rapidly coming forward as one of the most active local Audubon Societies in the southern states. During the spring the President of the National Association had the pleasure of visiting Savannah on two occasions and seeing something of the splendid work that is being accomplished in this section of Georgia. Bird-walks have been attended and renewed stimulus in ornithological study has been given an ever-increasing number of observers studying the bird-life of the region. The Society has an article every week in the leading Savannah paper. Inquiries are constantly received by the President and other officers, asking how birds may be better studied or more effectively protected and encouraged to come about the home. In March, several hundred people collected in the Savannah theatre to hear an illustrated address on bird-life.

There are few State Audubon Societies whose work has been expanded so extensively the past two years as that of the Indiana Audubon Society. Prof. M. L. Fisher is President, and Frank C. Evans of Crawfordsville is Secretary. Although a man of large financial interests and many obligations, Mr. Evans has devoted a great deal of time to the expansion of the Audubon work in Indiana. A bulletin recently published under his supervision, which gives instructions to those desiring to study wild birds and aid others in doing so, has been widely distributed throughout the state. The National Association's plan of Junior Audubon Clubs is being handled directly by Mr.

Evans and his associates, and the material supplied the children of the state is being furnished directly from his office. There is an unusually close bond of coöperation between the Indiana Audubon Society and the State Department of Conservation. The two organizations work in the utmost harmony.

The past season the Illinois Audubon Society again gave a course of public lectures which were largely attended by the people of Chicago. Mr. O. M. Schantz, President, has spent much time in lecturing on various topics connected with conservation work, and his influence has been felt throughout the state. Miss Catherine A. Mitchell, the Secretary, has had her hands full attending to the correspondence and distributing literature called for by the people of her state and elsewhere.

The Western Tennessee Audubon Society has succeeded in establishing a magnificent bird-reservation near Knoxville, and it is a great pleasure to announce that this has been named in honor of Magnolia Woodward who has been the mother of the Society since the day of its first organization. It was she who kept the Society alive some years ago during a period of very little activity. The naming of this important reservation for her is, therefore, a most fitting and appropriate tribute.

During the first week in May the Audubon Society of New Hampshire and the Manchester (N. H.) Bird Club had an extensive exhibit in behalf of bird-conservation at the Institute of Arts and Sciences, Manchester, N. H. The exhibit took a wide scope, and the National Association was very glad to coöperate by sending such materials from the office as would be of value and interest to those attending the exhibit.

ROBINS AND MULBERRY TREES

Are the members of the Audubon Society aware that our good friends, the Robins, Catbirds, Flickers, Woodpeckers, and other berry- and fruit-eating birds are threatened with extinction, and that our Federal Government is now issuing permits to kill Robins "when they are committing or are about to

commit serious injury to cherries and other small fruits"? The holder of such permit is allowed to shoot Robins "from half an hour before sunrise to half an hour after sunset, each day from May 16 to July 15, and to hold the bodies in cold storage until after July 25 for 'food purposes.'"

This means that a man with a cherry tree, a gun, and an appetite for Robin potpie could kill and eat during their nesting-season all of the parent Robins within a large radius of his place and allow their nestlings to die a lingering death of starvation in their nests on our trees and window-sills.

From March until June the Robins, with the assistance of other species working just as hard, scour the gardens, fields, and forests clean of destructive insect life and make possible our small-fruit crops. Yet in June, when the parent birds attempt to collect for their nestful of hungry babies their tithe of cherries and berries, which they had an indispensable share in raising, they meet with a very different reception from the one to which they are entitled. The small-fruit raiser who was glad to welcome them in February and happy to see them toiling so industriously in March, April, and May, combating insect plagues, now regards them as robbers and greets them with shotguns.

How about the nestlings of the Robins whose lives are snuffed out in the second which holds the roar of a shotgun and whose only crime was that the Creator made it necessary for them to have some fruit for themselves and their babies as a change of diet? Have you ever seen a nestful of young birds, accustomed to being fed every few minutes become orphans? The least rustle of a leaf or movement of a twig causes them to chirp, stretch their necks, and open their mouths to the fullest extent in expectation of being fed. As time passes, they gradually become weaker and weaker until they are no longer able to lift their heads. Calling with sad, weak voices on the parents who never come, they gradually die a lingering death of starvation.

We who erect bird-houses, feed the birds in the winter, take bird-hikes for study and recreation in the summer, and enjoy their companionship must not abandon them in this emergency. We must be aroused to plant fruit-bearing shrubbery and trees for our feathered friends. We must not be slackers!

On the passage of the Federal Migratory Bird Law, a few people interested in our wild-life, foreseeing the increase in birds, advocated the planting of fruit trees for them, so they would not become nuisances. For many years, the Game Commission, sportsmen, Boy Scouts, and school children of Pennsylvania have been planting mulberry and sweet cherry trees for the birds and nuts for the squirrels. They have planted hundreds of thousands.

Our birds prefer the fruit of the mulberry to that of the cherry, as it is sweeter and the glutinous seeds are easily digested, especially by young birds. Years ago, the wild mulberry was plentiful but has been commercialized and destroyed by man. The Russian mulberry, a small tree costing but a few cents, is a good substitute. It is a beautiful shade tree with fine foliage and smooth bark, a prolific bearer, and will grow almost anywhere. The fruit ripens about the same time as early cherries and berries bearing continuously from about the first of June to the first of September—a mature tree will feed hundreds of birds. They prefer the mulberry to all other fruits, consequently it is of great protection to the fruit-raisers. Dr. Kalbfus, the late Secretary of the Game Commission of Pennsylvania, one morning, in less than an hour counted twenty-two species of birds feeding on a mulberry tree.

Fellow members of the Audubon Society, let us plant bird trees—millions of trees, dedicating at least half the fruit to the birds. Let us interest our children in planting bird trees as well as erecting bird-houses—this is the foundation of conservation. Let us ask our various state forestry departments to raise seedling Russian mulberries in their many nurseries and send them to our schools by parcel post. Let us work in a sustained drive to save the lives of our birds. A tree for a life! That's what it means! Then let us plant trees for our feathered friends, that they may be saved for future generations.

"Trees that may in summer wear
Nests of Robins in their hair."

JOHN M. PHILLIPS.



1. BOAT-TAILED GRACKLE, MALE
2. BOAT-TAILED GRACKLE, FEMALE

3. GREAT-TAILED GRACKLE, MALE
4. GREAT-TAILED GRACKLE, FEMALE

Bird-Lore

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A Bird Sanctuary in a Small Residential Garden

By GEORGE S. FOSTER, M.D., Manchester, N. H.

THE writer has long felt that a well-established home with a small adjacent garden has something wanting about its environment if it does not have the things necessary to attract birds.

Song-birds certainly play an important part in the happiness of a home. Also, if children who have reached the proper age are continually playing about the garden, they will develop traits of observation if given something in nature to observe. The writer has children of this age and they are continually making inquiry about birds and plants, trees, and flowers. Such inquiries must assist the parents to be better observers and naturally to acquire the desire to help the children.

Back of our home we have a space some 55 feet square. We have bounded this area by a hedge of ibota and barberry. Within the space we have set out apple, plum, pear, and cherry trees for our own use, with the possible exception of the cherries which we contribute freely to the Robins and Cedar Waxwings. For small shrubbery we have set out rose bushes, elderberry, red cedar, mountain-ash, fir balsam, blue spruce, plain ash, bittersweet, Virginia creeper, Dutchman's pipe, white pine, red pine, and numerous other varieties of low-growing shrubs. These were planted with the idea of creating an environment proper for birds in the fall and winter that they might find enjoyment within the branches and food when they lacked other resources for nourishment. All of these have flourished and are doing well and seem to fulfil the desires of various varieties of birds.

About two years ago, after things had begun to grow well, we set about to plan out a systematic home for the birds with the idea of having them brood their young within this small area.

Our children were becoming intensely interested, and our own enthusiasm was augmented by theirs. As a result, plans were drawn and ready-made houses, baths, feeding-stations, nesting-supply station, and the like were secured.

We secured the services of a mason and carpenter and things were begun

to make birds happy. The idea was not without its drawbacks, for the numerous house-cats, the English Sparrows, the small space at hand were all hindrances. However, we made progress and, wherever possible, we placed some sort of an enticement for birds. To eliminate the house-cat my boy used his air-rifle. The same method proved effective for driving away that pest, the English Sparrow.

Houses for Wrens, Bluebirds, Chickadees, Flickers, and other birds were placed under the advice of an ornithologist of some note, in positions where they would be attractive.

The attractive little circular Wren house was placed on the south side of



GENERAL VIEW OF GARDENS IN REAR OF THE RESIDENCE

In this small plot of land are located the devices for attracting birds, as mentioned in the text; close scrutiny will reveal some of them

the residence, near the rose-arbor and Virginia creeper, and close at hand, on the lawn, was placed a bird-bath, which has proven to be a great relief to all kinds of birds.

On the south side of the house, just outside of the dining-room window, was placed a wall feeding-station which the birds frequent and enjoy very much. Just a little to the left of this feeding station, but at a higher elevation, was placed a Bluebird house. This house has been occupied this season and a fine brood of youngsters raised. This rearing of a Bluebird family, just outside of our dining-room window, has been a great source of pleasure and instruction to my children.

In the rear of the house, facing the east, is situated the garden and some fruit trees. Here, near a cherry tree, we placed a large protected feeding-station. This has been frequented by various kinds of birds both summer and winter. Because of our neighbor's house-cats it has been necessary to surround this feeding-station with a wire fence. At each corner of the feeding-station we have placed a red cedar tree.

Among the fruit trees has been put another Bluebird house of the circular type, placed on an 8-foot galvanized iron pole. This house was visited by Bluebirds last year and again this season. At the base of the pole we have planted dwarf red pine and some bittersweet vine.

Just at the south border of the garden has been placed a nesting-supply station, with very happy results for many birds. This also can be used in winter for a suet-supply station as well as a grain-feeding station.

The rear of the garden is bounded in part by a trellis which is covered with bittersweet vine. In among this vine are placed two wall suet-cone feeding-stations, two Robin shelter nest-shelves and one Wren house. In this Wren



NESTING-SUPPLY STATION AT CLOSE RANGE

A little to the center and behind can be seen the Rockaway bird-bath and Martin-house pole

house a pair of Wrens built this spring but after completing the work they deserted the nest and built in a Wren house in a birch tree across the street. Here they successfully reared a brood. These sprightly little songsters have been a source of great pleasure to us all and as I write I can hear their song of 'five notes all in one,' as Burroughs puts it.

In the far northeast corner of the garden we erected a Purple Martin house this spring. This house has fifteen apartments and is placed on a pole 30 feet long. At the base of this pole was built a Rockaway bird-bath 4 feet high and 4 feet across the top. This bath contains three basins of cement varying in depth from 2 inches to a half inch. This has been a rendezvous for many birds in which to make their toilet. The Song Sparrows seem to enjoy it most, and this just at dusk each evening. How happy they seem in their bath, well protected from cats and shaded by the fruit trees, vines, and the sumac tree which grows very near!

Just at the south of this bath we placed a swing feeding-station which serves its purpose very well. All in all, this corner of the garden, bounded by

the ibota hedge, garnished with the evergreen trees and *Styrax japonica*, seems a little bird-city all by itself.

The garage limits a portion of the eastern border, and here, covered as it is by bittersweet and trumpet vines, the birds gather to refresh themselves. On the south wall of the garage was placed a Bluebird house and a Chickadee house. The Bluebird house has been visited and these houses soften the appearance of the garage wall on this side.

A general view of the garden, hardly 50 feet square, is rather pleasing to one interested in birds. The cherry, plum, pear, and apple trees are there, not entirely for our own use, but that the birds may enjoy them as well. The vines, hedges, and flowers of the garden attract the Hummingbirds and Wrens. At the close of day the Song Sparrow and the Chipping Sparrow enjoy the rockway bath. This space is for the birds and will remain so while the writer owns it. It furnishes a pleasant, worth-while recreation.

Regarding the Martin house, it pleases one interested in birds to know that in this, the first season it has been out, four Martins have quite regularly made visits. They come early in the morning and remain during the forenoon. The Bluebirds persist in fighting them away but in time, possibly next year, we hope that the Martins will return, conquer, and survive. How pleasing it would be to establish a Martin colony in a city from which they have been absent for several years!

Here is one little interesting incident in closing. Early this spring, in May, a pair of the Bluebirds were seeking to nest in one of the houses. A male English Sparrow took command of the house and the quarrel began. Such a noise and confusion! The Bluebirds called in cooperative forces and while the argument was at its height, seated on a wire running from the residence across the garden to the garage were seen the following birds: a pair of Bluebirds, a pair of Wrens, a Hummingbird, a pair of Purple Finches, a pair of Yellow Warblers, and a pair of Chipping and of Song Sparrows. They were all arrayed in a straight line and with the seeming intent of driving the English Sparrow away. It goes without stating that the English Sparrow lost out and the Bluebirds built and reared their brood. Many are the birds seen in this little garden daily. The Catbird, Blue Jay, Grackle, Flicker, Waxwing, as well as those enumerated as gathering on the wire, are seen at almost any time.

This account is given merely to encourage others to establish these little sanctuaries. We cannot do too much for our bird friends, and the recreation gained by this hobby is a beneficial one. May others take this work up and thus properly mold a fitting environment so that our feathered friends may enjoy coming to the city.

Little Stories from Birdcraft Sanctuary

By MABEL OSGOOD WRIGHT

I. A HUMMINGBIRD WAIF

OUR 10-acre Sanctuary, with its enclosing wire fence, was primarily intended as an isle of safety for birds on their travels as well as birds at home, but almost as soon as it became even locally known came the constant inquiry—"Have you a bird hospital? Do you care for maimed birds or nestlings that have lost their parents or otherwise come to grief?"

At first the suggestion seemed so good that we entertained it with enthusiasm; later on it appeared that the idea could be overworked to the verge of folly. Children, eager to help and at the same time gain recognition, would capture young birds, often in their first, ill-steered flight, that if left alone would have been perfectly well able to care for themselves, aided by overhead parental advice, etc.

In due course this misapplied aid was better directed, so that the birds brought in for care were those fatally injured or those with perhaps a sprained wing, or some minor trouble that a few days' peace, in a protected place, where food and water could be had easily, would allow Nature to make her own cure.

Among the larger birds that came in this way was a Wood Duck, two Great Blue Herons, a Woodcock, Bittern, and Loon. The first Heron was found one bitter cold January day in a half-starved condition, the tip of its bill being injured so badly that it could not obtain food in the normal way. It was placed in a large box-cage in a light, dry cellar, and fed with small fish, but though it swallowed them eagerly, it could not digest them and died after a few days. The Woodcock and Wood Duck had wing troubles, but recovered and went their way. The second Heron, Bittern and Loon each had fractures of one of the wing-bones; a two weeks' rest allowed the knitting of the parts and they flew away, the Loon living in the interval contentedly on the pond.

Two birds thus harbored gave us in return for the hospitality some intimate glimpses of themselves that might be called examples of bird friendship, without elaborating facts, and during the weeks that they were with us, wrote their own biographies in the records we are keeping—"The Stories of Birdcraft Sanctuary." The first of these was a scrap of a Hummingbird, brought to Birdcraft early in July, staying with us twenty-two days.

At the first glance it seemed more like a black bug than a bird, as it lay in the warden's palm, motionless, with no expression in its beady eyes. It had been picked up on the porch of the finder, who had brought it half a dozen miles in the hope that some means could be devised of rearing it.

No anxious parent was in sight, there was no visible nest from which it could have fallen, or any other clue, and it seemed almost impossible that so frail a thing could have been dropped on the hard boards, in any way, and still be alive.

A scant crop of rough black down was its only cloak, its neck was not strong enough to hold its head up or keep the needle-like bill from doubling under its body.

The warden made a nest-like bed of cotton in a small box, then sprinkled a few drops of sugar and water on his finger, which the bird ate greedily, following the shaky drops about with its tongue. At best it must have been several hours without food at a time when such young nestlings of any species require constant feeding in the daylight hours. In a surprisingly short time it revived and fed eagerly. At this period food was given every half hour, always by sprinkling it upon the fingers.

Soon the warden began to vary the food, using diluted honey. This diet and method of feeding were continued for ten days. By this time the bird was able to perch on the edge of the box, extend its wings and try to preen itself. The warden then changed the feeding method and sought to stimulate the bird's actions and natural habits by dropping the food into petunias, or other deep-throated flowers, and letting the Hummer siphon the nectar in the usual manner.

Then came strenuous days for the warden's entire family, for the bird demanded food every fifteen minutes, and if it was not forthcoming would squeak and dash about until it was supplied, the children taking their turn as foster parents, until each one realized the labor required of the little parents to keep even the normal Hummingbird family of two supplied.

It was at about the twelfth day of its visit that the bird took its first bath in a tablespoon, first alighting on the edge and then splashing vigorously. After this it flew about at its own pleasure, having a finely developed sense of direction that kept it from colliding with the many objects of a family kitchen and living-room combined, and at no time was it confined. After feeding, it would perch, sometimes on a picture, the clothes-rack, or on the top of the clock, and more than once it stopped to rest upon the head of the warden's wife when she was ironing and moving about, more or less, sometimes becoming tangled in her hair. Its favorite night roost was the edge of an electric lamp shade.

Up to this time the bird had been an object of keen interest and study, but for the remaining ten days of its stay it became a serious responsibility. A constant watch had to be kept at the opening and closing of the screen doors, lest it should make a sudden dash and be caught and crushed, for to keep a bird of this species in any sort of available cage was unthinkable. In spite of constant feeding and the liberty of the house, the Hummingbird was fast growing restless and the desire for liberty was uppermost.

On the twenty-second day, after much deliberation and some misgivings, it was decided that the time had come when the waif must be released, for its own sake as well as our own. What would it do on thus suddenly being thrown upon the world? Would it be lonely and bewildered, presently seeking to

return to house shelter, like some of the Robins and Catbirds that I had rescued and housed in pre-sanctuary days? Would it quickly exhaust itself by too rash and constant flight?

It was a little past noon of a half hazy August day when the warden brought the bird to my garden. The phloxes were ablaze with bloom and their delicate fragrance was made more evident by the heavy air. Pausing before a stalk of very large white flowers, the warden opened his partly closed hand, releasing the bird which had remained there without a struggle, so complete was its confidence.

My camera was placed to the best advantage for taking a snap of the bird against the white flowers. The moment came! It paused a moment upon a finger of the now open hand, and then circled the white spray with the true spinning-wheel hum of a veteran. My fingers tightened upon the bulb of the camera, the shutter being set at full speed, when lo, and behold! from above came a flash of iridescence and a second Hummingbird circled about the phlox! The waif gave two sharp calls, the other bird responded, and before I could press the bulb the two had darted away in evident joyous companionship!

Was it only a chance meeting? Or was it a feathered scout of the tribe sent by Mother Nature to seek and reclaim the lost?

One thing only is certain, the house-reared Hummingbird did not return to us, but entered into its own kingdom—our best reward. At Birdcraft we do not seek to humanize birds, or to tame them artificially; we try to look at their lives from their own angle, not ours. We strive to aid them and then speed them on to the life for which they were made.



AN ORPHAN HUMMER

In the Nesting-Season

By KATHARINE UPHAM HUNTER, West Claremont, N. H.

IT WAS June; the voices of a thousand birds proclaimed it in the old pasture, in the encroaching forest, in the broad adjacent fields, and in the ancient apple orchard. Never had bird music been richer, more charged with the promise of renewed life and hope. When I awoke, the pleasant voices of my dreams had melted into the liquid, joyous notes of Purple Finches, poured from the elms drooping over the stone house, and quickly I arose to seek the little singers, silhouetted against the mist-encircled mountain and the shining river at its foot. Why, just at that moment, when earth, sky, bird music, and the miracle of recurring dawn wrought their spell upon the listener, should the Brown Thrashers and the Catbirds in the hedge begin their vocal grotesques?

Then from the pasture came the plaintive, eerie wails of the Upland Plover, and the minor lay of the Vesper and Field Sparrows, their notes seemingly much more cheerful now than when, sometimes at night, their sad singing quavers in the dark. In the field, over the hum of many tiny voices, rose the clear, sweet whistles of the Meadowlark; with a flash of gold, black, and brown plumage and pennant white tail-feathers the bird would mount overhead, his rich jumble of song lasting till he reached the top of an elm. Over in the orchard the amorous Flicker sent forth his clarion notes, and the Woodpeckers voiced their emotions in a dull, steady drumming. There, too, the jubilant Orioles and the tender Bluebirds warbled and arranged their differing nests. On the edge of the woods the Scarlet Tanagers and the Vireos chirruped, the Ovenbird shrilled, and the busy little Warblers darted and sang their tiny praise.

Yet all this joyous prelude of bird music and beauty of plumage was not to delight our eyes and ears. The real meaning was hidden away in the grass, the trees, and the bushes. If a mortal found the secret, happy the mortal. If not, happier still the birds, and in either case, perhaps, small difference in the scheme of Eternal Nature.

But I am a gossip, of a kind, and I needs must go out and see what my bird neighbors were doing. The first that I saw was a Bluebird; she was flying toward a knot of an old apple tree in the orchard, and she had something in her beak; squeakings tell the secret, and a peep into the knot-hole reveals a feathery family of five young Bluebirds. Their baby clothes were grey, tinged with blue. They lisped and stretched their necks, with friendly eyes, and yellow, gaping throats, but when my face greeted them instead of their mother's, they silently withdrew and flattened themselves against the wood of the tree-hole.

The next discovery was a Meadowlark's nest in the field above the house. Five large white eggs, plentifully speckled with dark spots, lay in a grass nest

with an arch of grasses completely hiding the eggs. In the fork of a young white pine on the edge of the field, I found a Chipping Sparrow's cradle; it was made of dry grass and rootlets and lined with horse-hair. Five small pastel-blue eggs with purplish brown markings at the larger end, foretold more Chippies. But I hurried away, lest even my presence should cause the parent birds to desert the nest. Some Chipping Sparrows are over-sensitive.

Not far from the little white pine grew a tiny hardhack bush, and from beneath it, as I approached, flew a small brown bird whose white outer tail-feathers proclaimed it a Vesper Sparrow. The nest of dry grass, loose yet firm, and lined with soft horse-hair, rested in a slight hollow scooped in the earth. Five white eggs, speckled with brown, lay in it.

And so I spent the happy hours, wandering from upland field to wooded valley, and from valley to the river meadows. Everywhere life was at the high tide. And the magic of it all came when the sun sank behind the violet mountain; then in the dusky aisles of pine in the cathedral woods rose the holy evening hymn of the Hermit Thrushes and from the timbered terraces far below by the river rang the rich, mysterious song-cycle of the Veery—*wheel, wheel-wheel, ah wheel!*—running, crystal water, bush ferns, moss, mystery and wonder, shot with pain, compressed in the song of one dun bird.

But verily "in the midst of life we are in death," for Nature is ruthless, and the smiling landscape hides many a bitter tragedy. The struggle for survival brands everything living, and from the frail birds is wrested every year a heavy toll. Only yesterday, in a mood of high ecstasy, I found two Hermit Thrushes' nests. The first nest was in the pasture, cunningly contrived on the ground at the base of a small white pine seedling; it was fitted to the earth and built of pine needles with an edging of soft green moss at the brim; it contained four eggs. The nesting bird slipped away noiselessly over the ground and then flew up as I approached, but this high priestess of the woods had revealed her true shrine and very reverently I knelt before it. The second nest was on the edge of a hemlock fringe of woods, and I saw the downless new birds in its piney cup. Today the nest was empty, and the helpless blind babies gone. From a pit I passed this afternoon some ugly skunks leered out at me. Were the heavenly voiced babies squab for skunks?

The walk had revealed one more tragedy. Two days ago, below the stable, in an unprotected spot, I had found—a Veery's nest! From the center of a low meadowsweet bush two great eyes watched me unflinchingly and let me approach by cautious degrees till I bent over the bush. Then out quietly flew a female Veery—quietly, unexcitedly she flew to a nearby basswood and shook her feathers, leaving me to examine her nursery—the nursery of the most magic-voiced of all our birds whose strange singing weaves a spell as deep as any ever cast by witches' incantation. Plaited of roots and grasses, with one crow's feather for luck, was the sprite's nest, and within it three clumsy, naked birds. Today but one blind thing remained. Now, when with the sunset rose

the mysterious, haunting notes of the Veery, I knew that the Hebrew mother wept again for her slain innocents. "In Ramah was there a voice heard, lamentation and weeping and great mourning, Rachel weeping for her children, and would not be comforted, because they are not."

As the gathering darkness stilled the voices of the Hermit and Veery, I heard an Upland Plover trail his weird and long-drawn whistle across the sky, and then there was silence, save for the plaintive call of a distant Whippoorwill and the occasional hooting of an Owl from the deep woods along the river.





1. FEEDING



2. BROODING



3. ON GUARD

THREE VIEWS OF THE YELLOW WARBLER
By Albert D. McGrew, Pittsburgh, Pa.

My Neighbors, the Nighthawks

By S. R. MILLS

With Photographs by the Author

DURING the month of June, 1919, I was especially interested in a pair of Nighthawks which frequented the neighborhood of my home (Kingston, Ontario, Canada). From the garden I could watch these birds on their incessant sky-hunt for insects, each selecting its section of the upper air apart from the other. There was a peculiar fascination in watching one of them climb so high in little ascending jerks, then to see him 'side-slip' and come tearing down in a 'nose-dive' until on a level with the housetops, where he would 'straighten out' with a *bongk!* and whirr upwards to begin again his fitful, irregular climb towards the heavens.



A ROOF-NESTING NIGHTHAWK

One bright morning, while watching this continued aerial performance, I saw one of the Nighthawks alight on the neighboring housetop, about a hundred feet from me, and I was greatly impressed with the contrast in appearance while on the wing, and squatting on the roof railing. In the air he is most graceful, but out of it he is awkward and ungainly. He had been in repose but a short time when by chance a Bronzed Grackle alighted on the railing a few feet from him. The Grackle was plainly startled on finding a living eye in that mottled mass of feathers, but after a little hesitation he grew bold and, strutting up to him, stared him in the eye in a most impolite manner. The

challenge passed seemingly without notice on the part of the Nighthawk and the Grackle soon flew off. This little scene impressed me with the Nighthawk's equable temperament and peaceable nature.

'Bird Neighbors' states, "The Nighthawk's misleading name could not imply more than the bird is not: it is not nocturnal in its habits, neither is it a hawk." Probably no person familiar with the habits of this bird would seriously disagree with the foregoing statement, but it goes on to say, "—except



"FOUND THE FEMALE SITTING ON THE EGGS"

when the moon is full they are not known to go a hunting after sunset." The latter statement will no longer hold good for on June 1, when the new moon set about 10.30 in the evening, I heard these birds hunting continually until dawn.

On June 20, when I was beginning to think these birds very considerate of me, in that they seemed always to dive in the direction of the garden, I by chance saw one of them rise from our house and go into the sky quite close to its mate. The two had hunted together but a moment when the one which had been in the air for some time dropped quietly to the roof. I immediately went inside and ascended the ladder which led to the well-hole in the roof, making as little noise as possible. When I pushed up the cover I heard the Nighthawk fly to the next house where she regarded me with some uncertainty. I saw the eggs, as expected, and climbed out on the roof to look for the other bird. He was very high in the sky, but I had scarcely discerned him when he dropped in a swoop that brought him within a yard of my head. Then both flew round and round, not daring to alight, making me feel somewhat of an intruder. I, therefore, admired their odd coloring and perfect movements for only a moment before I dropped back into the well and left them undisturbed.

By the time I had returned to the garden one of the birds had already gone back to the hunt.

The following day I again went up, this time bringing my camera, and lifting the well-cover quietly, found the female sitting on the eggs only 3 feet from me. She remained perfectly motionless and after the first glimpse I did not again meet her gaze until I had walked to the opposite side of the roof. I then attempted to approach her, this time looking directly at her, but at my first step she flew reluctantly to the next house. This time the male did not concern himself with my intrusion, although he must have seen me, easily, from his lofty position. Fearing to keep the bird from her eggs too long, I stayed but a few minutes and did not attempt to take any photographs. On my third visit, however, I was less cautious, and on approaching the bird she would spread her wings and make a sound like a spitting cat. Since she gave no indication this time that she would desert her eggs, I set up my camera and measured off 22 inches from her beak to the lens. I obtained two very sharp pictures by using a 3-second bulb exposure and a small stop. Later, I tried to take some snaps of her with wings spread in defence of her eggs, but these were not sharp owing to cloudy weather which made it necessary to use a large stop.

As the hatching of the eggs requires but sixteen days, my discovery must have been soon after they were laid, for the young birds appeared some two weeks later. I had been going up every day in order to mark the date of their hatching, when my usual visits were prevented by a severe rainstorm which lasted three days. The storm being over, I once more called upon my bird friends, and found the female watching forlornly over a single young one, which, on investigation, proved to be quite dead. I could find no trace of the other young one, but it is my theory that it died first and that the parents, noting it to be lifeless in contrast to the one still living, disposed of it, the remaining young one even after death still attracting the female's mothering instinct. Of course, this storm came at the most inopportune time, but it does seem a pity that these peaceful birds do not build a nest, or at least lay their eggs in some place less exposed to the elements.

The black chips on the roof, shown in the picture, probably made the roof especially attractive to the Nighthawks. No other roof in the vicinity has this feature.



TWO SCENES IN THE HOME-LIFE OF A YELLOW-BILLED CUCKOO
Photographed by Joseph Pollak

The Migration of North American Birds

SECOND SERIES

XIX. BOAT-TAILED GRACKLES

Compiled by Harry C. Oberholser, Chiefly from Data in the Biological Survey

Of the five or six geographic races of the Boat-tailed Grackle (*Megaquiscalus major*) only two occur in the United States. Neither are strictly migratory, but they wander more or less during the winter season, influenced doubtless largely by the food-supply.

The **Boat-tailed Grackle** (*Megaquiscalus major major*) is resident and breeds in the south Atlantic and Gulf States, north to southeastern Virginia, west to southeastern Texas, and south to southern Florida.

The **Great-tailed Grackle** (*Megaquiscalus major macrourus*) is resident and breeds chiefly in eastern and southern Mexico and in Central America, but also north to central Texas and southeast to Colombia.

Notes on the Plumage of North American Birds

SIXTY-FOURTH PAPER

By FRANK M. CHAPMAN

(See Frontispiece)

The **Boat-tailed Grackle** (*Megaquiscalus macrourus*). The difference between the sexes is more pronounced in the Boat-tailed than in the Purple Grackle, the female of the former being a generally brownish bird with small trace of the glossy plumage of her mate. Furthermore, she has a much shorter tail. Young birds of both sexes resemble their mother. The post-juvenal molt is complete. The female acquires a plumage essentially like that of the adult, but that of the male is much duller than that of the mature bird. There is no spring molt and the shining fully adult plumage is not donned until the first post-nuptial, that is, second fall molt, after which there is no further change in color.

The more northern of our two races of this species, the true Boat-tailed Grackle (*Megaquiscalus major major*), differs from the more southern race (*M. m. macrourus*) in being smaller with a shorter tail (particularly in the male); in the male the violet of the crown does not, as a rule, extend behind the nape, instead of spreading over the foreback, and the female averages paler.

Notes from Field and Study

Birds Across the Continent

For fifteen years I had been a student of ornithology in Ohio. My spare time, and sometimes not so spare, had been delightfully spent unraveling the complexity of bird-life, delving through all the volumes of the science, until I knew most of the birds by sight and a great many by note.

I had studied birds from Michigan to Florida, but nowhere did bird-life seem so varied and appealing as in Ohio. We were located about midway between the Arctic and the Tropical faunal zones, giving us the benefit of seeing twice a year most of the myriad inland migratory hosts, in addition to our resident species.

Notwithstanding the fascination I had for Ohio birds, the call of the West had long been whispering of the many beautiful birds of the setting sun, and I longed to see and know them. While it was a trial to leave these most intimate friends behind, the longing to know new ones in a new land was the more alluring.

It was my desire to see the change in bird-life across the continent, and there is no better way to see this than by motor.

We left Ohio July 7, and arrived California August 12. This was the time of year for most of the birds to be rearing their young, which gave us a fairly adequate idea of which birds were residents of the locality in which they were seen. Surprises await the student on a journey like this, where the landscape and environment are constantly changing. My dream was of many new species all along the road. To my surprise I saw no new ones until reaching Lyons, half way across the state of Kansas, when we saw the Arkansas Kingbird. Most of the bird books spoke of the Dickcissel being seen as far west as Illinois, while we saw it as far as Trinidad, Colo., and it was plentiful most of the way. A great many Ohio birds were with us as far as Missouri, then we began missing them—the Downy and Red-bellied Wood-

pecker, Cardinal, Catbird, etc.—and I began to realize that maybe I was leaving forever a great many of my feathered friends. The Red-headed Woodpecker, Flicker, Kingbird, Phoebe, Meadowlark, Baltimore Oriole, Goldfinch, Towhee, Logger-headed Shrike, Brown Thrasher, Chickadee, Robin, and Bluebird were with us more or less, all the way to Kansas and Colorado, several species overlapping the western forms. We saw the Kingbird long after seeing the Arkansas Kingbird, and the Eastern Meadowlark after seeing the Western. We saw the Brown Thrasher frequently as far as northern New Mexico. The Kingfisher, Killdeer and, Mourning Dove were the only three species which remained unchanged to the Pacific coast.

As stated above, the Arkansas Kingbird was the first new species seen, then followed new ones in rapid succession. The Yellow-headed Blackbird was the next seen beyond Lyons, Kan., although we should have seen it sooner. No drawing I have ever seen has given this bird its natural beauty. The gorgeous golden orange of the head and neck in contrast with the glossy black of the body, makes it one of the most attractive birds I have ever seen. We saw it no place but central Kansas. The Desert Horned Lark, Magpie, Lark Bunting, Mountain Bluebird, and the Burrowing Owl we saw in Colorado. In New Mexico we saw the Road Runner, Black-chinned Sparrow and the House Finch. In Arizona we saw the White-headed, Northern Pileated, and Lewis' Woodpeckers, Blue-fronted Jay, Audubon's and Black-throated Gray Warblers, Slender-billed, Red-breasted and Pigmy Nuthatches, Plain Titmouse, and Western Robin.

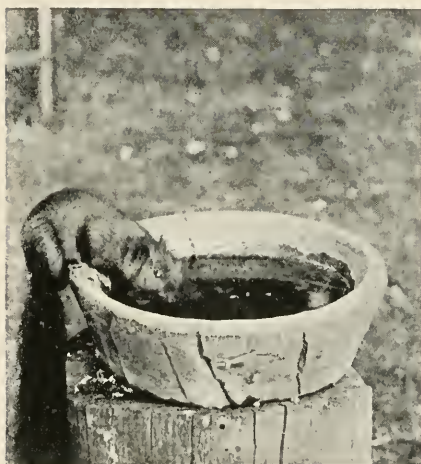
Crossing the desert we saw very few birds. Occasionally we would see the Desert Horned Lark and a few Scaled Quail. After passing through the Cajon Pass, over the San Bernardino Mountains, into Southern California, we came to more vegetation and more water and naturally saw more birds. We

had traveled hundreds of miles without seeing scarcely a living thing, then abruptly entered a land of palms, flowers, and oranges with its complement of numerous habitations of men, animals, and birds.

On first coming to California I was disappointed in the number of birds seen. The number of species of land-birds was far less than in Ohio during summer and fall, because of the scarcity of water. As late fall and winter time came on, winter visitors appeared in larger numbers and now we have more than in Ohio during winter.—H. N. HENDERSON, *Whittier, Calif.*

Are Squirrels Bird-Enemies?

As I watched the birds drinking and bathing at the bird-bath the other day, a squirrel played in kittenish fashion with the knotted end of a rope that hung from the



THE RED SQUIRREL TAKES A DRINK AT THE BIRD-BATH

Craig S. Thoms, Vermillion, S. D.

limb of a tree to the ground. In a few moments he dropped the rope and zigzagged intermittently, and with many prankish poses, over to the bird-bath, where he is seen in the illustration. The birds had hopped to the ground or taken a winged jump to the nearby fence as he appeared, but without any signs of fear. Not an alarm-note was uttered.

Is this frisking little fellow the bird-

enemy some think him to be? "The more squirrels the fewer birds," is a common remark.

I tried to recall, one by one, the depredations of squirrels that I positively knew about during the twenty years that I had been a lover of birds, and their fewness surprised me. A few times I had seen Robins driving a squirrel out of the tree which held their nest, which seemed to be evidence against the intruder. Only last summer, before my very eyes, a red squirrel stole down the opposite side of a tree and pounced upon a Mourning Dove as she sat upon her nest. She fluttered vigorously and got away, but the rascal ate her eggs. A friend of mine was sitting under a tree in his yard when some very young, featherless birds fell to the ground at his side. Upon investigation a red squirrel was found in the tree-top throwing young Orioles out of their nest.

But these instances exhaust my list in an experience of twenty years in a town where red squirrels, which are thought to be the most mischievous of all squirrels, and birds have been associated in about ideal proportions.

Doubtless the word 'roguish' best characterizes the squirrel. In the instances given, the squirrel did not eat the young Orioles. He is not much given to flesh-eating; throwing them out of their nest was doubtless only a playful prank. The squirrel did not want the Mourning Dove that he caught. He does not eat Doves, although eating the eggs cannot be excused. And when the Robins drove the squirrel out of their tree, he allowed himself to be driven without protest. He seemed just to have happened into the tree without evil intent.

Since this is all the evidence against the squirrel that I can recall out of twenty years of rather close observation of bird-life, I cannot class the squirrel as a bird-enemy, and could not do so if my evidence were multiplied tenfold, for birds have a way of recouping their losses.

I have known a Robin, for example, when molested by English Sparrows, to build three nests in about as many weeks. The last one succeeded, and she reared as many young Robins as though success had attended her

first nest. Mourning Doves rear several broods, some as late as September. It is the habit of most birds, when one nest is destroyed, straightway to build another. It would therefore seem to be true that the few depredations perpetrated by squirrels, and done doubtless more through sheer prankishness than from evil intent, do not lessen in any appreciable degree the number of birds.

It must be recognized, however, that wild creatures, while usually liking company, also like room. Squirrels may become so numerous in a town as to drive many birds away, just as English Sparrows or Grackles may become so numerous as to crowd other birds out; but a 'sprinkling' of squirrels in a well-shaded town does not decrease either the number or kinds of birds.—CRAIG S. THOMS, *Vermillion, S. Dak.*

An Unexpected Bird-Concentration

On July 17, 1921, four of us, bird-cruising on Mount Monadnock, N. H., were ascending the mountain along the fire-line, running between the 'Red Cross' trail and the 'Pasture' Trail, when a few yards ahead, in large red spruces, we saw a number of small birds feeding on the ground where a patch of strong sunlight filtered through the trees. At this spot the forest floor was thickly sprinkled with freshly fallen spruce-cones from a tree which, in comparison with its immediate neighbors, was shedding its cones somewhat early. Just previous to this we had seen a small flock of birds fly into the trees some distance ahead and had heard their calls which we had remarked sounded like the notes of the American Crossbill.

At first glance the birds on the ground appeared to be all adult male Goldfinches, but with them were at least one adult male Purple Finch and three or four adult female or immature White-winged Crossbills, and the latter could be seen extracting seeds from the fallen cones. In addition, Mrs. Whittle, equipped with more powerful glasses than mine, identified two adult male American Crossbills with the other birds and could even see their crossed mandibles. Several Juncos, all females or immature birds, com-

pleted the list, and they, in common with the Purple Finch and the Goldfinches were picking up the spruce seeds which had become freed from the cones.

Further up the fire-line we ran across other places where freshly fallen cones abounded and here were Chipping Sparrows and more Juncos, and in one place six Purple Finches were feeding on the ground. The Purple Finches appeared to constitute an entire family, an adult male and female and four in juvenal plumage. As we later descended the mountain we encountered still more of these birds so that they were distinctly common among the spruces at this time.

Of the six species of birds mentioned above, the Goldfinches and Chipping Sparrows are not commonly found in this environment. The former are rarely and the latter are almost never met with in thick spruce woods, at least that is my experience, yet here, on July 17, we found these species and four other species in very unexpected numbers.

In regard to the Purple Finches, I have often wondered what becomes of these birds which nest so abundantly about the farms surrounding Monadnock, for they become exceedingly scarce for a season as soon as nesting cares are over and the young are able to feed themselves, that is, in July, and the explanation may be that it is a common practice for the parents to lead their young from the comparatively open farm land to the forest where the seeds of the spruce are usually obtainable and thus introduce them to the vegetable food that will soon form so important a part of the diet of northern wintering birds. The Chippies probably flocked with the Purple Finches and followed them to the mountain.

Crossbills of both species are celebrated for their erratic wanderings and eccentric nesting habits, both as to season of nesting and as to locality. While both species generally nest well to the north of Monadnock, the Red Crossbill sometimes nests considerably south of the mountain, but inconstantly as far as any given locality is concerned William Brewster has described a case of this species nesting in Marblehead, Mas (See *The Auk*, Vol. XXXV, p. 225.)

There is, accordingly, a possibility that this species may nest on Monadnock. The White-winged Crossbill, however, is seldom reported so far south at this season of the year and there seems little probability that this species nested in the vicinity or on the peak, although on account of the altitude of the mountain (3,166 feet), a surprise of this kind might occur, the upper reaches of the

A Window-Sill Aviary

A free lunch-counter for birds was opened August 1, in my west window. The first patron was a Chipping Sparrow who liked fresh doughnuts crumbed very fine, served in a glass saucer. Chippy gobbled them all up, then flew away to tell all of his friends and relatives about it. Very soon I had all I



PURPLE FINCHES CHIPPING SPARROWS, AND JUNCOS, WHO ENJOYED HEMP SEED
AND DOUGHNUT CRUMBS ON THIS WINDOW-SILL

Sometimes twenty were there at one time. They drank water, sweetened and plain,
and also liked sand-gravel

mountain possessing nesting conditions, as regards temperature and the presence of spruce woods, distinctly similar to the Canadian Life Zone. An example of another member of the Canadian avifauna pretty certainly nesting here is found in the occurrence of a pair of Bay-breasted Warblers summering more than 1,500 feet below the summit in 1921.—CHARLES L. WHITTLE, *Cambridge, Mass.*

could do to keep them supplied. Little Mother Chippies came who were feeding their second broods and they stuffed their bills full and carried away breakfasts and lunches to their nestling babies.

Hummingbirds arrived. They wanted 'soft' drinks. Sugar and water 'straight' was most popular. They drank and perched and drank again and did not even wait to be served, but, sticking their long tongues out,

drank out of the bottles, fighting for first turn.

By and by a Purple Finch flew in. He would like some hemp seed, if you please. "No! Nothing else would do." He preferred



FROM AUGUST 1 TO 20, HUMMINGBIRDS CAME ALL DAY LONG TO THIS THIRD-FLOOR WINDOW IN A SUMMER HOTEL IN MAINE

Pill-bottles covered with turkey-red and filled with sugar and water enticed them 15 minutes after they were put out

it cracked, but as that was only to be found on the hostess' hand, a very small quantity was consumed.

The Junco came along now, very shy and self-conscious. He would not say what he liked but sampled a little hemp seed and then a little doughnut crumbs, found them both good, and said he would come again. Success was now assured, five dozen doughnuts and over six pounds of hemp seed being eaten before the place closed on September 20.—ELEANORA S. MORGAN, *Northeast Harbor, Maine*.

Egrets on Long Island

In 1921, there were at least six American Egrets summering in the marshlands of the Nissequogue River and of Stony Brook Harbor, and on the sand-flats of Smithtown Bay on Long Island Sound. On or about July 26, I saw one bird, and up to September

7, had seen one or a pair several times; but on that day I came upon six of them feeding all near together on the river flats. A friend of mine tells me he has been as close to them as 50 feet.

The birds were around most of the summer. Farmers by the shore speak of seeing them, and I am led to believe they could be seen near the marshes almost any day. On September 10, while automobiling along the river, I saw four Egrets, breast-high in the water, not more than 75 yards away.

Exactly five years ago, Egrets (one or two individuals) were observed in this vicinity—to wit, about the inland tidal marshes of Setauket and Stony Brook. I remember seeing one bird myself in company with a Great Blue Heron; and I recall several successful pilgrimages made by people to the marshes, though I find neither in *The Auk* nor in BIRD-LORE mention of the 1916 occurrence.

Phenomenal last year was the presence of so many Egrets. Eaton, in Volume I of his 'Birds of New York,' published in 1909, gives 26 records, from 1856 to 1890, of the Egret in New York State. A note by Mr. John Treadwell Nichols in *The Auk* for July, 1914, records a bird seen by him at Mastic, L. I., in August, 1913—a year of another marked Egret flight. Research, however, has not brought to my eyes any published records since then, though—and this is important—talk with life-long residents of this community suffices to show that Egrets occur here *not* extremely rarely, but *merely unusually*.—JAMES W. LANE, JR., *St. James, L.I.*

An American Egret in Eastern Massachusetts

In the latter part of August, 1920, I observed an American Egret in a small pond in Newbury, Mass. I was within 100 feet of it, and there was no doubt as to its identification. Its body was entirely white, slightly smaller than that of the Great Blue Heron, its legs black, and its bill yellow. I had observed Great Blue Herons and Bitterns in the same pond many times. The Egret rarely moved as it stood in the water. It remained around the pond about ten days.—HENRY CURTIS AHL, *Newbury, Mass.*

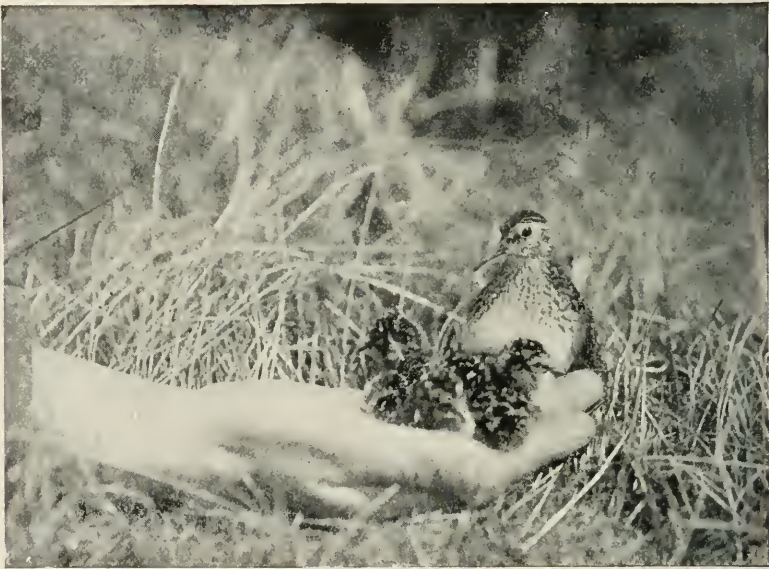
A Bird in the Hand

Is a bird in the bush worth two in the hand? Before I answer this question let me tell you of my experience with the Least Sandpiper.

This little bird, about as big in the body as an English Sparrow, is much like the Spotted Sandpiper in general outline and actions, minus the tipping, at least so it appeared to an average business man bird-lover. They are to be found nesting along the St. Lawrence River below Montreal and in

with young just hatched is beyond describing, and the photograph must tell the story.

The mother (I suspect) was the braver of the pair. When I placed the downy young in my palm she fearlessly came to them. The touch of one parent's breast on my middle finger with the other old bird beside her was so thrilling that I shall not spoil the experience by attempting to describe it. Now I am ready to answer my opening question. In this case, at least, I must claim that a bird



BIRDS IN THE HAND

the Gulf of St. Lawrence. The accompanying photograph was made on the Magdalen Island, June 20, 1921, when I had gone as a representative of the Province of Quebec Society for Protection of Birds, in company with Mr. Herbert K. Job.

We were with the Least Sandpiper during the nesting season and found them sweet, confiding little birds, soon learning to trust us near them and even brooding as we stood right over their nest, a grass-lined hollow in the swamp.

The courting actions of these little birds are interesting. They dance on the ground, face each other, jump into the air, strut about for hours at a time. The action of the parents

in the hand is worth two or two hundred times two in the bush.—WALLACE H. ROBB, (P. Q. S. P. B.) *Portland, Maine.*

A Chimney Swift Invasion

About May 20, 1922, the New York papers published extended accounts of the entrance of Chimney 'Swallows' into the home of Mr. Rice of Kingston, N. Y. Their accounts seemed so circumstantial that at our request Mr. Julian Burroughs interviewed Mr. Rice and obtained from him the following statements in regard to this unusual occurrence. Evidently one or more flocks of migrating Swifts selected the chim-

ney of Mr. Rice's house for a roosting-place.

For some unknown reason they flew not only into the chimney but down to the fire-places connected with it, with disastrous results to themselves and Mr. Rice's home.—Ed.

Mr. Burroughs writes: "I have been able to verify the story about the 'Swallows' or Swifts. The report of the number killed was greatly exaggerated, otherwise it was true enough. I saw Mr. Rice and he took me in and told me the whole story. They did not kill any of the Swifts at all, but many died in the soot in the chimney, ten water-pails full, he said, down in the bottom of the chimney, smothered in the soot, and in their efforts to drive them out of the chimney about a thousand perished. Mr. Rice said:

"Saturday night a big flock of the Swallows were seen about my chimney, and I was sent for to come home, and when I opened the living-room door the rush of birds knocked off my glasses. I got to the window, covering my face with my arms, and got the window open. About 1,500 went out. Then we switched off the light, and when we turned it on again there were Swallows on all the mouldings and pictures, and these we picked off and threw out of the window, when they flew away. Later we found them behind all pictures and furniture. These we put out. They had brought the soot out of the chimney until it had to be shoveled up, and their wings marked up the ceilings, while their droppings marred the walls and furniture. On Monday they were still in the chimney and when I made a paper fire in the grate they drove the smoke down with their wings. I went to the furnace in the cellar and there were about fifty live ones and fifty dead in the furnace—also ten water-pails full of dead ones in the pipes and bottom of chimney."

Magpie in Iowa

In November, 1921, I wrote you about the Magpie in Iowa. In accordance with your desire, I write now to tell you that the Magpies stayed here all winter, going in flocks. They were very shy, it being almost impossible to get near them.

This spring the flocks seemed to disband and only a pair would be seen at once. For the past two weeks none have been seen or heard and I do not believe there are any here now.—LAURA BRADY, *Sutherland, Iowa*
May 19, 1922.

The Story of a Young Blue Jay

Several years ago I had a young Blue Jay. Christie, for so I named him, was found early one morning in June on a farm in the Susquehanna valley. He was immature; tail still short, and plumage not perfect yet. One wing was injured, so he could not fly. My boy took food in his fingers and moved it to and fro before the bird's mouth, when, presto! the bill flew open as if by magic, and the food was put in. We put vaseline on the torn wing and it soon healed. At first he was kept in a crate with food and water by him, and he soon learned to eat and drink. He liked bread and milk, meat cut up fine, and red raspberries. As the wing healed and he could take little flights, he was given his liberty in the big dining-room, having one corner as his own particular place. Part of the family grew very fond of him, and others did not like him. He knew his friends at the long table and would fly on one's shoulder or even on the head of the man who saved him. The two who did not like him he never went near.

I have fed Blue Jays for many winters but never dreamed what affectionate birds they were until I had Christie. I knew three or four separate calls very distinct from the others they have, but Christie taught me another, or rather a low, sweet song. He would fly on top of the inside doors and sing so softly and sweetly when the house was quiet and only one or two present. The outer doors were screened so he could not escape.

He delighted in baths and had his bath-tub by his food. One day some water was spilled on the painted floor, and down he flew for a bath; and once he flew into a big pail of water. Such a frolic, and how the water flew!

I once saved a young Robin and cared for him, and he showed his appreciation by opening his gold-lined mouth and biting me wickedly. But Christie showed only love and

trust. After he was fully grown and well, he escaped one day through the door. He flew up in a tall locust tree in front of the house. The farm was simply infested by cats, and a hungry cat was everywhere present, so I trembled for Christie. He knew his name as well as I knew mine, but my call of 'Christie, Christie' from the front porch brought no response. Liberty was too sweet. All through a windy, dark night he stayed in the tree supperless. The next morning when I called, his appetite was too strong, and he flew down on the porch. I carried him in rejoicing, and what a meal he ate! But he was soon given his freedom and disappeared.—ALMEDA A. COLLAN, *Mount Upton, N. Y.*

Starling Nesting in South Carolina

On April 24, I saw a black bird perched on a wire. As I had a pair of glasses with me, I was able to identify it as a Starling. A moment later it dropped to a lawn and walked along in the most approved Starling style.

A few days later, while talking with Dr. L. J. Blake of this city, I mentioned the event of that morning and he told me that he had a report of a black bird nesting on a trolley-pole. On May 7 we were able to get out to investigate the report and found a pair of Starlings nesting in an old Woodpecker hole.

These are my first personal records of Starlings in South Carolina. Miss Baugham, of the Kennedy Library staff, this city, tells me that during the spring migration of 1918 she saw a black spotted bird with large, light-colored bill, walking along a fence near her home. Doubtless this was a Starling.

If any of your readers have records of Starlings in South Carolina, the writer would be glad to hear from them.—GABRIEL CANNON, *Spartanburg, S. C.*

Home-Life of the Purple Finch

The Purple Finches are nesting in a pine tree outside my window where it is possible for me to observe their domestic relations!

The song of the male is very pleasing. It is full of life. It has strength, clearness, brilliance. It is not very frequently heard,

not nearly so often as the song of the Towhee or Robin, for example.

The Finch has a simple, but definite and well-modulated song, or succession of notes, with considerable variation in what he sings, and which is all too short in duration. One listens and feels a regret that too suddenly it has ceased!

Possibly the absence of frequency tends to make the song more welcome. One may suddenly, when and where least expecting it, hear the Purple Finch begin his combination of Warbler-like notes, trills and song. Then it is silent; possibly in a few minutes we will hear it again in the same spot, but more often the song is detected from another location—to the left or to the right or behind you, faint or more clearly, showing a change of base, so to speak.

This pair interests me particularly because of the apparent devotion of the male to his partner! He will suddenly appear in the nesting-tree and sing, possibly, in a tree near that in which his wife is performing her family duties. Seemingly it is a meal-time bell, or a call to a feast, for Mrs. Finch will at once hop off the nest and approach her lord with fluttering wings and uttering at the same time a most coaxing series of notes. It reminds me, every time I see or hear it, of the attitude that young birds assume in begging of the parents the food they seem never to have had a supply in satisfying quantity! Then Mr. Finch pushes his beak down the yawning mouth.

This occurs not once but repeatedly. I wonder if he is not regurgitating the food he has fetched with him. I may be wrong in this, but if it were in one clump or mass, he could easily place it in her bill at 'one sitting'—make one 'operation' of this love scene—but no, he deftly inserts his mouth in hers. Then he withdraws it, turns his head one way, and repeats the feeding; then in another direction repeating the feeding, for all intents and purposes treating the female as though she were a fledgling! Is this the common way of doing things in the domestic economy of Purple Finches? I never before have been where they seem to be so numerous. This certainly is Finch country and this pair is both fearless and friendly.

After giving his mate all that he may have in hand, so to speak, he suddenly will turn away, hop off to another branch in the tree, with Mrs. Finch after him in close pursuit and most insistent for further feedings. But he still moves away and then will fly from the tree most peremptorily. Sometimes Lady Finch pursues him for a distance; at other times, perhaps thinking of her nest and the unborn babes she must guard, she desists from pursuing her master and hops on to the nest, wiggling her body from side to side as she brings her wings closer to her side in the act of hovering—precisely after the manner of an old sitting motherly 'Biddy'!—HENRY H. COVELL, *Minnewaska, Ulster Co., N. Y.*

A Junco Wave

Leaving the house at 4 o'clock Monday morning, April 3, 1922, to catch an early train, I noticed many small birds sitting on the ground and in the street, which would flutter up just from under my feet and alight a few yards beyond. It being too dark to discern them sufficiently to identify, I passed on, wondering at their numbers and at their being on the ground. On my return at the end of the week, a number of people spoke to me of the occurrences of that Monday morning. The birds were Slate-colored Juncos, and when people woke up in the morning, the town was full of the birds, all sitting stupidly on the ground until nearly trodden on. Quite a number were picked up, seemingly inert, but the moment they were handled, they cried out and viciously attacked the hand of the person who held them. A local butcher left the transom of his shop open Sunday night, and in the morning there were about forty of the birds in the place. It had drizzled rain all night, and could it be that the birds were so drenched and 'fagged' out that they could not fly? For, as the morning cleared and the sun came out, they soon found their place in the trees.

There has been a dearth of Juncos all winter in this section of Iowa, and different ornithological friends of mine from over the State report the same for their vicinities. Out of curiosity I wrote to a number of individuals in the southern part of the United States

who had reported the Juncos in large numbers in the Christmas census, and they informed me that there had been an unusually large number of Juncos in the South the past winter. I know of no reason for the scarcity except that during the early part of the growing season in 1921 we had a period of drought which might have curtailed the production of weed seed and thus deprived them of food.—CHARLES J. SPIKER, *New Hampton, Iowa.*

Cardinals Nesting in Collins, N. Y.

I wish to report the nesting of the Cardinal Grosbeak in Collins, Erie County. I have a nest under observation, the earlier one having been robbed.

Since May 5, 1913, there have been Cardinals on the Cattaraugus Indian Reservation, but this is the first time I have found them nesting. The first nest was built May 7, the second begun May 15, in the woods of the Gowanda Hospital.

The Alder Flycatcher continues to breed in this vicinity. Two or three pairs are in close walking distance, but the only nest I have found was June 13, 1917.—ANNE E. PERKINS, M.D., *Collins, N. Y.*

A Two-Story Nest

I sat one day in a grove on a side hill watching a little Yellow Warbler in great trouble. Ten feet from me was a bush in which her dainty felted nest was placed. She had laid one exquisite white, brown-spotted egg; but while she had been absent feeding, and doubtless rejoicing with her mate over their new home and prospective family, a black bird many times her size that had been watching her movements from a nearby tree, slipped into her nest and deposited her own larger and sinister looking egg—a dusky egg, heavily and irregularly spotted with dark brown.

The interloper was the detested Cowbird. These birds are innocent looking enough, about the size of the common Red-winged Blackbird, but they build no nests of their own. They may be seen any summer day following close behind cattle and horses

grazing in our pastures and feeding on the insects which they disturb as they graze. Thus, even in their feeding, they make the animals work for them.

When the females lay their eggs they go to swamps and lay them in the nests of their cousins, the Red-winged and Yellow-headed Blackbirds; or to groves or orchards where they find the dainty nests of the Yellow Warbler, or the nests of other birds smaller than themselves.

I have never found their eggs beside other than spotted eggs. They seem to be too



A TWO-STORY NEST

shrewd to lay them in the nests of birds larger than themselves, or in nests with unspotted eggs, like those of the Mourning Dove, Robin, or Catbird.

They are among the worst enemies of our birds, for their eggs hatch more quickly than most other eggs, and their young grow with extraordinary rapidity, taking most of the food and literally crowding the rightful young to the wall of the nest. Sometimes two, three, or even more of these eggs will be found in a single nest.

The strange fact is that only the little Yellow Warbler seems to understand the danger of these enemy eggs. As I sat watching the little yellow lady in trouble, she kept

bringing billfulls of thistle-down, but would not even light upon the edge of her nest. Indeed, she seemed to regard her nest as a defiled thing because the enemy egg lay beside her own. She lit upon a branch near enough to reach over and drop the thistle-down upon the two eggs. The fact was that she was beginning a new nest, which was to rise above the first. She was burying her own egg together with that of the interloper; and not until she had built a complete new nest above the first one did she lay her clutch of dainty eggs and rear her young.—CRAIG S. THOMS, *Vermillion, S. D.*

Resourceful Cliff Swallows

It is often said that the Cliff Swallow is unable to construct its nest under the cornice of a building when the wooden surfaces are painted, and no doubt it is true that examples of its nests properly adhering to such surfaces are so infrequent that the rule is in accordance with the general belief. An example of an exception to the rule has been noted by me in Jaffrey, N. H., where three pairs of this species have successfully nested during 1920 and 1921, attaching their nests to smooth, painted surfaces formed by the base of a cornice and the finishing board adjoining. One nest was built in a corner and therefore had three surfaces of attachment, the others being detached nests with only two surfaces of contact. The wood was apparently planed before painting, so that these latter nests were built under conditions of maximum difficulty.

Sometimes, however, the problems of constructing a nest under such conditions are solved by a resort to a radical departure in nesting habits. Such a case was observed by me at Meriden, N. H., on July 3, 1921. Here, under the cornice of the gymnasium belonging to a private school in the village, whose finish was painted wood, two telephone wires incased in tubular insulations entered the building, passing through a board about 8 inches below the bottom of the cornice. These wires were horizontal, were placed at the same height, and were about 3 inches apart. During 1920, or earlier, a pair of Robins built a nest on the wires about 4

inches from the woodwork. I am not informed whether or not the pair of Swallows attempted first to build a nest in the angle under the cornice, but, be this as it may, the old Robin's nest revealed nesting possibilities hitherto untried by the newcomers, who, beginning at the rim, simply domed over the old nest and constructed the usual retort-like projection having a circular entrance. The nest was not in contact with the building at any point, but simply rested on the Robin's nest which in turn rested on the wires. At the time of my visit the old birds were industriously feeding their young, then nearly full-grown.—CHARLES L. WHITTLE, *Cambridge, Mass.*

A Thrasher's Bath

Early in May I saw a Brown Thrasher take a bath in an unusual way; while a very slow, mist-like rain was falling it flew into the top of an old, flat-topped lilac bush in a queer, fluttering way. Then it flew or jumped up and down on top of the bush, each time going under, or partly under and among the leaves, which were dripping wet. After jumping around in the top of the lilac several times, the bird flew on to a pear tree limb nearby, where it preened its feathers as birds do after bathing.—FRANK ATKIN, *Decatur, Ills.*

Titmouse and Squirrel

On my walk today, a short time after I entered the woods, I heard a Warbler song that was new to me, and while looking for it, I noticed a Titmouse near the top of the tree that was quarreling even more vehemently than usual with something. I would have paid him no attention as they are very common here, but while searching for the Warbler I saw that the Tit's argument was with a red squirrel's tail, which was hanging down from a crotch. He continued fussing a

minute or two, then flew down, perched on the trunk beside the tail, and gathered himself a mouthful of hairs, the squirrel seemingly paying him no attention. At first I supposed that the squirrel was dead, but when I started to walk around the tree he kept himself on the other side of the trunk, as usual. The Titmouse followed him around, took a few more hairs, and flew away, only to return in a very few minutes for more.—PREWITT ROBERTS, *Conway, Mo.*

An Odd Place for a Nest

In a dance hall in Hartland, Wis., there is an unused chandelier. Through a broken



window-pane a Robin gained entrance and built her nest in the receptacle of this chandelier, and reared a brood in peace and safety.

THE SEASON

Edited by J. T. NICHOLS

XXXII. April 15 to June 15, 1922

BOSTON REGION.—Many years ago it was written of this part of our New England spring. "Then seems to come a hitch,—things lag behind, till some fine morning Spring makes her mind," This season the delay came late in April when on five days the temperature fell nearly or quite to the freezing-point and the migration of birds came to a standstill. But immediately after the cold snap, the birds began to move northward again, the House Wren, Barn Swallow, Myrtle Warbler, and White-throated Sparrow appearing on the first warm days (April 26 and 27). On May 3, following a marked rise in temperature with a west wind, there came another flight, comprising Towhees, Brown Thrashers, Chimney Swifts, and several resident Warblers, a flight which brought the migration up to date. In some cases, as Mr. Nichols aptly says, "the tide of birds was running ahead of the calendar." Another prominent migration-wave, on May 10 and 11, again following warm weather, brought the Rose-breasted Grosbeaks, Kingbirds, Ovenbirds, Bobolinks, and other summer residents, and with them came a few transient species, *e.g.*, Blackburnian and Parula Warblers. These were closely followed by a host of North-breeding birds—Olive-backed Thrush (May 13), Tennessee and Magnolia Warblers (May 14).

During the migration of Warblers in the latter half of May, the Magnolia was noticeably abundant and the Blackburnian rather more numerously represented than in most seasons; the Blackpoll, however, a Warbler which is generally our commonest and most conspicuous transient in both migrations, was rare with us here in Lexington. I did not personally see a single one and am at a loss to explain how a bird which year after year over-ran this region—whose unmistakable song was heard day after day in the spring—how this ubiquitous and abundant Warbler can have so strangely disappeared.

The Yellow-throated and Warbling Vireos,

the Wood Pewee, and the Yellow Warbler, four birds which have markedly decreased locally during the past ten years, are this season fairly well represented here. The Wood Pewee is especially welcome and has returned to many of its former breeding-stations. The Yellow-billed Cuckoo and the Indigo Bunting, on the other hand, are present in small numbers. The rarity of the Cuckoo is not surprising, for its numbers fluctuate widely from year to year, but the Indigo Bunting has for years been a constant and common breeder and its scarcity is hard to explain.

There has been good evidence of an increase in the number of Killdeers visiting the region this year. Dr. Glover M. Allen tells me that a pair of these birds has frequented the vicinity of Soldiers' Field, Cambridge, during the late spring and early summer. Mr. George Nelson heard a bird calling late in May in Great Meadow, East Lexington, and four birds have been noted lately, also in Lexington, two of which have been under observation for a month. These records are in accord with the statement by Dr. C. W. Townsend in his 'Supplement to the Birds of Essex County,' 1920, p. 93. "This species [Killdeer] has changed in the last seven years from a very rare and somewhat accidental visitor to a summer resident."—WINSOR M. TYLER, *Lexington, Mass.*

NEW YORK REGION.—As noted in the previous report, warm weather in mid-April was marked by the arrival of several species of birds well in advance of their ordinary dates. A few House Wrens came at this time, establishing earliest records at several stations: April 10, Glen Ridge, N. J. (Mrs. F. M. Talbot); April 14, Islip, Long Island (Miss E. R. Jenks); April 15, Rhinebeck, N. Y. (M. S. Crosby); April 18, Montclair, N. J. (R. H. Howland); April 19, Garden City, Long Island (J. T. N.). There followed clear but cool weather with protracted

northerly winds and an almost complete cessation of migration.

In the first days of May, a slender steady stream of new birds from the South was setting in, with a small wave of migrants on May 2, and a more pronounced one on May 7, wherein the first Baltimore Orioles arrived in most sections and scattering individuals of several species appeared at a very early or even record date. A lull of two days was followed on May 10 by the only spring wave of transients of any considerable magnitude. Warblers were present in abundance for the first time, the Magnolia Warbler being especially numerous. The birds in Central Park from this wave moved out immediately. At Garden City they remained for two or three days, and at Rhinebeck, up the Hudson, transients from the same flight or an accumulation of arrivals were still exceedingly abundant the following Sunday, May 14 (Crosby and Murphy), whereas but few remained in the immediate vicinity of New York City. In the ten days that followed, the Blackpoll Warbler arrived generally, but a scarcity of transients and the advanced foliage of the trees simulated conditions which one usually finds the last of May at the 'tag-end' of land-bird migration. The spring army of birds had already passed this latitude into the North at an exceptionally early date, and on the whole the migration was one of the scantest and earliest in the memory of local bird students. That a number of species were late, not early in being recorded may, in some cases, be accounted for by their scarcity.

Among early records are: May 3, Magnolia Warbler in Central Park (L. Griscom); May 7, Canadian Warbler at Bronx Park (Starck) and at Englewood (Griscom); Gray-cheeked Thrush at Englewood (Griscom); May 10, Olive-sided Flycatcher in Central Park (Griscom).

The nest of a male Brewster's Warbler mated with a female Golden-winged Warbler was found during the Wyankie (N. J.) bird census by T. D. Carter and R. H. Howland, and the Brewster's Warbler and three of the young later photographed and banded. This interesting find will be reported in detail elsewhere. A pair of Cerulean Warblers nested at Poughkeepsie (George Gray and

other members of the Dutchess County Ornithological Society). A Redheaded Woodpecker nested at Garden City. A Lark Sparrow was observed at Montauk, Long Island, June 12 (J. T. N.)—J. T. NICHOLS, *New York City*.

PHILADELPHIA REGION.—Among the migrants arriving in April, the Bonaparte's Gull was by far the most conspicuous; so many of these birds were flying above the surface of the Delaware River and resting on the tidal flats that it was a difficult task to estimate their numbers with any degree of accuracy. April 15, first noted about 200 resting on bar; April 27, most numerous, flock of about 500 feeding on the river near mouth of Cooper Creek; May 6, last noted, 6. It is probably safe to say that at no time during the last twenty years, at least, has there been any such flight of these little Gulls. They were certainly as numerous as Herring Gulls are at any time during the winter months.

By far the most interesting record for the season was made by Mr. John A. Gillespie, who discovered a Yellow-crowned Night Heron at Glen Olden, Pa., April 23. The Heron made its headquarters in a rather heavily wooded glen and could most often be found early in the morning or rather late in the evening. At the suggestion of Mr. Gillespie, a trip was taken to the bird's retreat on May 15, and after a rather exciting wait, true to his custom, the bird appeared flying as silently as an Owl, and lit on a nearby beech tree, where an excellent view was obtained of its plumage, including the conspicuous white crown and cheeks and rather short plume. On May 29 the Heron was still about, according to report, though no mate had been observed.

No bird student could fail to note the abundance of Mourning Doves in this region; they seem to be becoming more numerous yearly, their soft, cooing notes being heard on all sides in the April woods and groves. Five nests were discovered without undue effort in a comparatively restricted area near the city. One of these nests contained the usual two eggs and was placed directly on the ground. The Warbler migration was not, it seemed, up to the usual standard, there

being no apparent pronounced waves which are a special delight to the bird-lover. This condition was no doubt due to the favorable weather conditions encountered, the migrants passing through without delay. Certainly the bulk of the Warblers had come and gone by May 14. On May 14, an excursion by canoe from New Lisbon, N. J., to Mt. Holly, via the Rancocas Creek, piloted by Mr. Nelson Pumyea, yielded 83 species, only three of which were at all out of the ordinary run of birds expected at that time of year (Loon, Osprey and Golden-winged Warbler). The apparent total lack of some of the more common migrant Warblers was surprising. Those who were out a few days earlier saw many more, and among them were found a scattering of Tennessee, Wilson's, and Cape May Warblers. The Yellow Warbler, Yellow-breasted Chat, House Wren and Wood Thrush seem to be decidedly more common than usual this year.

The coast migration of shore-birds is reported to have been very satisfactory, numerous Hudsonian Curlew, Dowitchers, Turnstones, Greater Yellow-legs, a scattering of Knots, and a host of smaller Sandpipers passed through during the latter part of May. Least Sandpipers and Semipalmated Plovers are still here at Camden June 9.

Two young Yellow-billed Cuckoos out of the nest and able to fly short distances (June 8), seems a rather early date for such an occurrence.—JULIAN K. POTTER, *Camden, N. J.*

WASHINGTON REGION.—The spring migration of 1922 about Washington proved to be unusually interesting. Most of our summer residents and transients arrive from the south in April and the early part of May, and during these two months of the present year there were not only gratifyingly large numbers of birds present, both of species and individuals, but many rare or otherwise attractive ornithological visitors made their appearance.

The weather was moderately cool up to the middle of May, thus setting the stage for a migration movement that in many respects was about normal. The four most noticeable migration waves occurred (1) from April 29

to 30, its effect lasting until about May 3; (2) May 7; (3) May 10 to 12; and (4) May 14. In all of these the migration movement began on the night of the day preceding the first dates above given. The height of the migration season was about May 12, and the tide rapidly receded after May 14, until by June 1 practically all of the transient species had passed northward.

The cold weather of the early spring induced a few species to remain later than usual, as, for instance, the Ring-billed Gull to May 14, its average date of departure being April 21; the Pied-billed Grebe, noted up to May 13, the average departure of which is May 3; and the Yellow-bellied Sapsucker, April 29, the average departure of which is April 23. The Canada Goose, moreover, was observed as late as April 21, on which date Dr. H. H. T. Jackson saw a flock of 50 to 60 flying over the city of Washington, which record is three days beyond its previously latest spring stay (April 18, 1920).

A feature worthy of mention is the generally early arrival of the spring migrants. About thirty species were from three to eighteen days ahead of their average spring appearance, and some of them close to their best records in this respect. Furthermore, the Wilson Thrush noted on April 9 by Mr. F. C. Lincoln, at Plummer Island, Md., was thus earlier than its previously early appearance of April 20, 1889; and the Traill Flycatcher, seen May 7 in the National Zoological Park, was one day ahead of its previously earliest spring record (May 8, 1906). A few species, however, most of them normally rather late migrants, such as the Lorg-billed Marsh Wren, Yellow-breasted Chat, Nighthawk, and Scarlet Tanager, were unusually late in putting in their appearance, but this may be due to lack of observations, an element always liable to cause error in records of the non-appearance of species in the spring.

Among the birds taking part in this spring migration were a number that were unusually numerous, such as the Tennessee Warbler, Bay-breasted Warbler, Myrtle Warbler, Canadian Warbler, Scarlet Tanager, and the Purple Finch. Some, however, that should be common were apparently decidedly un-

common or even rare; the most conspicuous cases of this kind being the Chestnut-sided Warbler, Blackburnian Warbler, Rose-breasted Grosbeak, Kingbird, and Bobolink.

Of rare or otherwise notable occurrences the spring of 1922 produced rather more than usual. The White-crowned Sparrow, which we have previously reported as wintering about Washington, remained in Dr. C. W. Richmond's yard on the outskirts of the city until May 6, having been previously noted by him on April 30, May 1, and May 4. A White-crowned Sparrow, probably another individual, was seen by Miss Katherine H. Stuart at Fort Myer, Va., on May 9.

The Prothonotary Warbler, which seems to be of more or less regular occurrence and possibly breeds about Dyke, Va., was reported a number of times this year, first on April 22 by Miss Stuart. A single bird was also noted in the National Zoölogical Park by Mr. A. H. Howell and a number of other persons.

Two Black Vultures were seen at Laurel, Md., on March 25, by Mr. E. B. Marshall. This species is of only occasional occurrence about Washington, and this record is therefore noteworthy.

Mr. R. W. Williams reports finding a nest of the Florida Gallinule containing ten eggs on May 11 on Alexander Island, Va., in the Potomac River near Washington. This makes the third breeding record of this species for the vicinity of Washington, although it may be more common than observations hitherto have indicated.

Two nests of the Virginia Rail containing eggs were found by Mr. A. H. Hardisty on what is known as Little River, a channel of the Potomac River along Analostan Island near Washington, on May 26. This is the second authentic record of the breeding of this species in the Washington region. A nest of the King Rail was found by the same observer on May 14 in the marshes near the Arlington Experiment Farm not far from the city of Washington, which record is worthy of mention in view of the rarity of this bird as a breeding species in this vicinity.

Up to the present time the only record of the Willow Thrush for the vicinity of Washington was a single bird obtained by Mr. Ned

Hollister on September 2, 1920, but we were fortunate enough to find another one on May 7 1922 in the National Zoölogical Park in the city of Washington.

By far the most interesting occurrence of this spring, however, was the appearance of the Evening Grosbeak in the Washington region, since it adds this famous bird to the District of Columbia fauna. So far as we are aware, this Grosbeak, east of the Allegheny Mountains, has heretofore not been recorded farther south than Mount Holly, N. J., and Haverford, Pa., both of which localities are not far from Philadelphia. The first report from the Washington region came from Cambridge, Md., where it was reported by Mr. W. D. Gould during the latter part of January. Later, on April 3, five were seen by Mr. George Marshall, at Laurel, Md., and six on the two following days. It appeared in the National Zoölogical Park at Washington on April 21, on which date several were seen by Mr. William Hopkins. From this last date on until May 13 it was seen on almost every day in practically the same place in the Zoölogical Park, where often on the ground it fed regularly on the seeds of the box elder and elm, and on the buds and flowers of other trees. Its characteristic notes were frequently heard, and an attempt at song was once noted by Miss Katherine H. Stuart. While a majority of the individuals apparently remained in the vicinity of the Zoölogical Park, the species was reported also at Takoma Park, Md., on April 23; and by Miss M. T. Cooke on May 6 at Cabin John Bridge, Md. The last straggler of which we have any record was noted on May 26 at Glen Echo, Md. Bird-lovers in the vicinity of Washington are interested to see whether or not this distinguished northern visitor will repeat its visit in the near future. —HARRY C. OBERHOLSER, *Biological Survey, Washington, D. C.*

OBERLIN (OHIO) REGION.—The latter half of April was cold and unfavorable, so that the migration brought in but a few new arrivals. On the night of the 20th snow fell to a depth of three inches, and on the 21st and 27th there were exceptionally severe frosts. The House Wren came on the 17th

and the Spotted Sandpiper on the 18th. The Sora, Florida Gallinule, and Bank Swallow were first noted on the 24th. With the last two days of April the weather became more favorable bringing Green Heron, Water Thrush, and Catbird on the 29th, and Baltimore Oriole, Black-throated Green Warbler, Black and White Warbler, and Common Tern on the 30th.

The weather for May was generally fair and warm so that the migration progressed quite steadily. Increased numbers of the Red-headed Woodpeckers were noticed on May 2. Warbling Vireos and Blackburnian Warblers came on the same date. Ovenbirds and Wood Thrushes, although first found on the 2d, probably arrived a few days earlier. Kingbird and Northern Yellowthroat came on the 4th, Cerulean Warbler on the 5th. On the 6th, on a hike taken to the lake, a number of new migrants were found, Crested and Least Flycatchers, White-crowned Sparrow, Scarlet Tanager, Red-eyed Vireo, Magnolia, Nashville, Chestnut-sided and Blue-winged Warblers, Blue-headed Vireo, Long-billed Marsh Wren, Veery, and Olive-backed Thrush. Yellow-throated Vireo, Tennessee Warbler, and Redstart came on the 7th, Caspian and Black Terns, Semipalmated Plover, Orchard Oriole and Ruby-throated Hummingbird on the 8th.

There seems to have been a lull in the migration now until the 11th. Between the 11th and 13th the height of the migration was reached. During this period the arrivals were the Wood Pewee, Bay-breasted, Black-throated Blue Wilson, Canada, Mourning Prothonotary, and Prairie Warblers, Yellow-breasted Chat, Acadian Flycatcher, Piping Plover, Whip-poor-will, Indigo Bunting, and Rose-breasted Grosbeak. The first Black-poll Warbler was noted on the 18th.

A last small wave came on the 20th and 21st bringing the Olive-sided Flycatcher and taking away most of the Warblers. However, a few Wilson, Magnolia, Canada, Mourning, and Black-poll Warblers were still with us on the 27th.

The Warblers on the whole and the Magnolia, Cerulean, and Black-throated Green in particular seem to be exceptionally numerous this spring. The Mourning Warbler has

been seen a number of times, while the Black-throated Blue on the contrary has been represented by only a very few individuals.

Of the winter birds the Tree Sparrow and Brown Creeper departed about the normal time, the Golden-crowned Kinglet and Red-breasted Nuthatch somewhat before and the Junco and Purple Finch somewhat after theirs.—S. CHARLES KENDEIGH, *President of Cardinal Ornithological Club, Oberlin, Ohio.*

MINNEAPOLIS REGION.—The third week of April continued cold and raw. The ice in the larger lakes in the vicinity of Minneapolis went to pieces slowly, disappearing finally shortly after the middle of the month (Lake Minnetonka, April 16), but in the northern part of the state it remained some days longer (broke up in Lake Itasca April 23, Orcutt Frost) and drifting ice was present in Lake Superior throughout the month. At Minneapolis, on May 19, the temperature fell to 27° and a blizzard with a fall of 2 to 6 inches of snow visited all parts of the state. The snow soon melted in the south but lasted a day or two farther north. The weather service reported this the worst April storm in Minnesota since 1907. Real spring weather followed quickly in the wake of this final blast of winter and throughout the remainder of April and all of May the weather continued fairly equable, temperatures in the daytime rarely sinking below 50° or rising above 75°. There were a few hot days in mid-May which changed a previously backward, lagging spring into a rapidly advancing one, so that the season jumped all at once, about May 20, into conditions very like early summer. Before this time the spring had been regarded, from the farmer's standpoint, as a late one and a lack of sufficient rain had furnished an additional drawback. Following the early freshets, the lakes and streams were abnormally low and the marshes and swamps unusually dry.

June thus far has been a hot month and there has been a considerable increase in rainfall but this, unfortunately, has come in the shape of severe downpours, accompanied at times by high winds reaching in places tornado violence, wrecking thousands of trees and doing great damage to property of

various kinds. These terrific storms must have been very destructive to nesting birds.

The most marked feature of the bird migration at Minneapolis this year was the almost entire absence of the usual mid-May Warbler wave. Nearly all the possible species were seen by one or another observer but for the most part in only limited numbers. At Red Wing, on the Mississippi River, about 45 miles southeast of Minneapolis, there was a single large flight of mixed Warblers on May 9 which lasted only a single day (Miss Densmore). A probable explanation of their failure to appear here is that the advent of hot weather caused them to make an abrupt forward movement of such length that it carried them entirely over this locality and there were no succeeding large waves. About the middle of the month we plunged into almost summer conditions and from that time on very few migrating Warblers were seen.

An idea of the progress of the season can be gained from the following outline calendar. I am indebted for many items in this record to the following persons: Mr. and Mrs. F. W. Commons, Mrs. Phelps Wyman, Mrs. C. F. Keyes, Mr. E. D. Swedenborg, and the Misses Carol H. Webb, Agnes W. Williams, and Harriet F. Younglove, members of the 1922 University bird class who did considerable independent field work.

April 15. Turkey Buzzard. Myrtle Warblers at Anoka (Gillis). Striped gopher.

April 16. Hundreds of Myrtle Warblers, the first of several waves. Tree Swallows; Chipping Sparrow; a pair of Brewer's Blackbirds. Robins building. A Kingfisher selecting a nesting place. A Broad-winged Hawk. Marsh Hawk. Mourning cloak butterflies have been out for several days. Hepatica and blood-root in bloom.

April 19. American Bittern.

April 20. Loon. Robin's nest with one egg.

April 21. A large flock of Evening Grosbeaks. Lesser Yellow-legs.

April 22. Brown Thrasher. Large flocks of Flickers have been passing for several days. Hazel in bloom. City lawns are now green and the elms are a russet-brown haze with the swelling flower-buds.

April 23. Chewink; Cowbird; Swamp Sparrow; Yellow-headed Blackbirds (males).

April 24. Chimney Swift.

April 26. Horned Grebes (10 to 12); Barn Swallow; Bank Swallow, a colony just arrived at their holes. Dutchman's breeches in bloom.

April 28. Solitary Sandpiper.

April 29. Common Tern: a flock of 50 Yellow-legs and the following Ducks all in pairs and apparently mated—Bufflehead, Ruddy, Shoveler, Mallard, Ring-neck and Blue-winged Teal. Box-elder, ironwood, cottonwood and elm in full bloom. First dandelions.

April 30. Palm Warblers; many White-throated Sparrows; Flickers digging nesting-holes. Wild ginger and large-flowered bell-wort in bloom.

May 1. Wood Thrush. Watched a flock of Double-crested Cormorants on Lake Minnetonka engaged in their curious mating antics.

Wood anemone, marsh marigold and toothwort (*Dentaria laciniata*) in bloom. The white birch trees with their small, light green leaves and slender, drooping catkins look as though draped with delicate lace.

May 3. Black-throated Green, Yellow, and Black and White Warblers; House Wren; Veery; many Grinnell's and one Louisiana Water-Thrush; Dove's nest with young; Sora; one Greater Yellow-legs with the lesser species. The Greater Yellow-legs is a rare bird hereabouts of late years. The Sora Rail has almost disappeared from our marshes during the last two years. The three-flowered gum and ground plum in bloom.

May 5. Rose-breasted Grosbeak and Spotted Sandpiper. Yellow violets in bloom.

May 6. Pine and Tennessee Warblers; Scarlet Tanager; Baltimore Oriole; Clay-colored Sparrow.

May 7. Yellow-throated Vireos at Elk River (Bailey). The trees are now well leafed out and the lawns are green as summertime and everywhere dotted with dandelions. Tulips, daffodils, and the Missouri currant in bloom.

May 8. Maryland Yellow-throat and Red-eyed Vireo.

May 9. Olive-backed Thrush, Catbirds, Least Flycatchers, Kingbird, Ovenbird, Magnolia and Wilson's Warblers, Redstart, Nighthawk. Red-berried elder in full bloom. First white cabbage butterflies.

May 10. Bobolinks, all males. First Gold-finches. White-crowned Sparrows. In bloom: plum and apple trees, wild cherry, junberry, nodding trillium, early rue, white violets, Jack-in-the-pulpit and wild geranium.

May 11. Canada Warbler. Swamp saxifrage in bloom.

May 12. Black-poll Warbler, Black Tern. *Phlox maculata* and blue cohosh in bloom.

May 13. Warbling Vireos, Wood Pewees, and a Harris' Sparrow. Lilacs in bloom.

May 14. Yellow Warbler building. Young Robins ready to leave nest. Last Ruby-crowned Kinglet.

May 15. Many Black Terns. Florida Gallinule. Phoebe's nest, small young. Long-flowered puccoon in bloom.

May 17. False Solomon's seal (*S. stellata*) in bloom.

May 19. Orchard Oriole; this bird is rare here. Yellowoccasins in bloom.

May 20. Three Caspian Terns. Conditions are now generally just like early summer, the first Robins are off their nests; Catbirds, Yellow Warblers and Wood Thrushes incubating; Grackles with young; water-leaf coming into bloom and willows and poplars shedding their seeds.

May 21. Indigo Bunting. Least Flycatcher building. Wild honeysuckle in bloom.

May 22. Saw three cock Ring-necked Pheasants out in a meadow. They are fond of displaying themselves in open, low ground where they are very conspicuous. This bird has become quite common hereabouts.

May 23. In bloom: Scarlet painted cup, wild lupine, spiderwort, blue-eyed and yellow-eyed grass.

May 27. Red-backed, Baird's and Semipalmated Sandpipers associated in same flock. Brood of Mallard Ducks just hatched; both parents with them.

May 29. Wild roses in bloom and the great-flowered pentstemon just coming out. Hillsides gay in places with the golden ragwort. Heard a Baltimore Oriole uttering incessantly a distinct, clear-cut *chewink* call! Different individuals of this species not uncommonly possess calls and even songs that closely resemble the notes of other birds.

May 30. Wood Thrush just hatching. Red-eyed Vireo's nest, one egg.

June 1. Watched two female Cowbirds trying to enter same Yellow Warbler's nest while the Warbler endeavored to prevent them.

June 2. A Hummingbird's nest, bird incubating; seven Yellow Warbler's nests, eggs just hatching in two; six Least Flycatcher's nests, birds sitting; a Veery's nest, four eggs. Stemless lady's-slipper, pitcher plant and tufted loosestrife in bloom.

June 3. Wild red phlox in bloom.

June 5. Wild iris in bloom.

June 6. Two nests of the Spotted Sandpiper with eggs. Nest of the Rose-breasted Grosbeak with young.

June 9. Northern bedstraw (*Galium boreale*) in full bloom.

June 11. Nest of Marsh Hawk with three eggs and one newly hatched young.

June 12. Green Heron's nest with three young just out.

June 14. Nest of American Bittern with four young just emerging from the eggs. *Zygadene* just coming into bloom.—THOS. S. ROBERTS, *Zoological Museum, University of Minnesota, Minneapolis, Minn.*

CHICAGO REGION.—The weather during the recent period has been warmer than is usually experienced here in spring. The Sparrows began arriving during the first week in April and continued with other migrants until May, when the first Warblers appeared. There was no sudden rush of Warblers this year but a gradual passing through during the first weeks in May, so that they seemed less abundant than usual. Nesting is in full swing at this time (June 15), and seems to have begun earlier this year.

Ducks were plentiful during the last of April, and Blue-winged Teal, Pintail, and a pair of Shovellers have been reported from various sloughs where they are apparently breeding. A flock of 25 Lesser Scaup have been in the harbor off Chicago for the past ten days—non-breeding birds, no doubt. April 23, Black-bellied Plover were seen in two different localities, and May 2, a flock of 80 from Hyde Lake (A. C. Weed). The abolishment of spring shooting seems to be showing results already.

A few of the rarer birds reported are:

Sandhill Crane, Dunes, Ind., April 16 (W. B. Richardson); Lapland Longspur, Addison, Ill., April 22 (C. J. Hunt); Bachman's Sparrow, Beach, Ill., April 23 (C. C. Sanborn); Evening Grosbeak, Washington Park, May 5 (A. Lewy); Grasshopper Sparrow, Deerfield, Ill., May 6 (C. C. Sanborn); Yellow-breasted Chat, Dunes, Ind., May 14 and 21 (C. J. Hunt), and Deerfield, Ill., May 22 (H. K. Coale); Philadelphia Vireo, Deerfield, Ill., May 21 (H. K. Coale).

To date, 44 species have been found nesting. Mr. W. B. Richardson reports from the Dunes a Marsh Hawk nest with *eight* eggs; a Long-eared Owl's nest destroyed before the eggs hatched, and he was attacked by a Great Horned Owl when he attempted to photograph its nest. At Hyde Lake, Ill., Mr. C. J. Hunt and Mr. B. F. Gault found Virginia Rail and Savannah Sparrow nests on June 4. The writer, with Mr. E. J. Scupham, spent from May 20 to 22 on the Kankakee River near the Illinois-Indiana state line, and located many interesting nests. Prothonotary Warblers were plentiful, and, while one nest contained eggs, most of them were just starting to build. Other stubs held Tree Swallow, House Wren, and even an English Sparrow. Two Hairy Woodpecker nests were seen, each containing large young ready to fly. Mr. Scupham later found Crested Flycatcher, Chickadee, Cardinal, and others there. He also reports from Homewood, Ill., between June 5 and 10, the following—Upland Plover, King Rail (two nests, eleven and thirteen eggs), Bittern, Least Bittern, Migrant Shrike, and many other more common ones.

To date 194 species have been reported.—COLIN CAMPBELL SANBORN, *Chairman Report Committee, Chicago Ornithological Society.*

KANSAS CITY REGION.—It is regretted that notes covering only half of the current period can be included in this letter, since the writer leaves shortly after the middle of May for a month or so in more remote and more fruitful fields for the study of nesting habits. However, Messrs. Bolt, Teachenor, and Woodworth, having promised to do a lot of field work during the writer's absence and to keep voluminous notes, it is hoped that the next letter will contain important data.

Spring has been late this year, and, though the early breeders have averaged later in their nesting, the migrants in the main seem not to have been delayed by the cold, wet season. Sizable flocks of Juncos, instead of stragglers merely, may have lingered beyond their accustomed time of departure, but the bulk of these winter visitors left for their northern homes during mid-April as usual. This is mentioned because of the insistence of several local students that the bulk of this species remained long after their regular leaving-time.

A pleasant fact to record is the noticeable increase in Bob-whites in a wide area in the southern parts of the city. On the breaking up of the covies in late April, the cheery and ringing call-notes of this sturdy species have been heard on all sides. Many pairs have been surprised in suitable nesting-places and two nests have been located. It is feared that the local craze for Airedale terriers tends to keep down this fine bird, as ranging dogs of this species in twos and threes are often seen in the places where the Bob-whites nest.

Red-breasted Nuthatches were still present on April 18, three having been seen on that date. On the same day a third specimen of the Western Red-tail was brought in to Mr. Frazier for mounting. The several records of this form this season indicate a local invasion. Redstarts and Kentucky Warblers were heard singing for the first time on April 21, though it is likely that they had been present and silent during several cold, wet days prior to this date. Blue-gray Gnatcatchers had their nests well under way at this time.

April 22 was Harris's Sparrow day, as thousands of these old fellows were singing at a great rate from every tangle and thicket. It is always hard to say just when the bulk of these birds are passing, as they go in waves of varying numbers. They may be here in droves today and gone tomorrow, and in three weeks are common again.

Local students will regret to learn that the Prairie Horned Larks and Killdeers that have always nested on the high prairies in the region of 63d Street and Ward Parkway have at last been driven off by building and grading operations. The many and varied species

that have always found a refuge in the 'plum thicket' nearby are likewise doomed to a speedy exile. A list of breeding species of this delectable spot would, I believe, astonish even its discoverer and one-time chronicler, Ralph Hoffmann. It numbers 48 species!

Pairs of Blue-winged Teal have been observed all spring about ponds near the city and on two of the park lakes within the city. At least one pair have begun building operations, though it is quite too much to hope that they may succeed in bringing off young within plain sight of a busy street-car line and within throwing distance of a boulevard.

Warbling and Yellow-throated Vireos migrating in numbers on April 29 were late, as were Savannah, Vesper, and Grasshopper Sparrows on May 3. Passing Prothonotary and Tennessee Warblers were numerous in the Missouri River bottoms on May 14, and migrating Bitterns were flushed on the uplands near Waldo on the same date.

Up to the middle of May but comparatively few Tennessee Warblers had been heard in the parks and along the boulevards where usually at this season the staccato call of this busy insect-gleaner is much in evidence. The present scarcity would seem to indicate a dearth of canker-worms and other pests of the elms.

Great numbers of migratory Thrushes were present from May 11 to 15 in all wooded situations over the entire region. Professor Shirling reports having seen the Veery (*H. f. salicicola?*) in unusual numbers on May 13 and also having heard the song of this species in his yard near Swope Park. This is the first authentic record known to the writer of the local singing of this bird. The migratory Thrushes are usually silent on their passage through this region, but all save the Hermit have now been heard here at one time or another.

Roy Woodworth reported a small flock of Bobolinks on May 14. Seasons occasionally pass without this species being seen here at all, and it has rarely been heard here in full song.

Notes received from Johnson Neff, of Marionville, Mo., mention the Double-crested Cormorant and Sandhill Crane as two rarities seen at his station in early May.

Much correspondence has failed to bring to light any further data on the Magpie invasion of the lower Missouri Valley. Mr. Charles Dankers' notes on the fifty individuals in Holt County mark, so far as I can learn, the southern limit of the remarkable migration of this species.—HARRY HARRIS, *Kansas City, Mo.*

DENVER REGION.—While the wave of spring migration was slow in reaching us, and then seemingly of small magnitude as compared with previous similar periods, the rush of nesting with our local birds was sudden and most pronounced. There are more young Robins and young House Finches in this vicinity than ever before observed by the writer at this date. Many other species have been found nesting more commonly in the suburbs this spring, to-wit, Lark Sparrows, Lark Buntings, and Meadowlarks. And the Bluebird has nested during the past eight weeks nearer in toward the denser portions of the city than for several years past.

One of the outstanding and very striking features of this season's local bird-life has been the almost total absence of Warblers; a single Audubon's Warbler was seen in one of our parks on April 28, another in the outskirts on May 28, and a single Macgillivray's Warbler on May 16. These are the only Warblers detected by the writer, in the city, excepting, of course, our summer resident Yellow Warbler, which arrived here on May 7 (about its average). As usual, it came at once in numbers and has remained common since its first appearance.

One of the great pleasures and possibilities inherent in one's interest in birds, as has often been said before, is the unexpected sight of a rare bird, an experience coming to the writer twice this spring. On April 25, a Golden Eagle was seen majestically sailing over his neighboring park. A few of these grand birds haunt the mountains within thirty miles of Denver, and nest in the canyons within this area.

Gambel's Sparrow was first noted here on April 24, though in all probability it was present in the outskirts much earlier, and the White-crowned Sparrow came in to Cheesman Park on May 8, on which date, and in

the same place, a Gambel's Sparrow, and a White-crowned Sparrow were seen at close range, within a few feet of each other. It is seldom that one has a chance to see these two almost identical Sparrows so close together that one can instantly compare the head markings of the two subspecies, each with the other.

The last White-crowned Sparrows were seen here on May 28. Mocking-birds appeared in the outskirts on May 11, but none have been seen by the writer in any of our parks, though they often have been in them in years past.

An unusually large number of Western Tanagers were in the city between May 14 and May 21, on which latter date six brilliantly colored males were watched for some time within a couple of blocks of the writer's home. This species must have been present in the region in considerable abundance, for many inquiries have come about it, the bright plumage, especially the striking crown, compelling attention of even the most inattentive observer.

Each spring one sees examples of species clinging to districts almost in the heart of the city; again a Flicker has nested close to the Y. M. C. A. building downtown, and on May 25, a Plumbeous Vireo advertised itself by its very insistent and characteristic song near the state capitol. This species has been common since its arrival on May 21, while the Warbling Vireo has been detected but four times this spring, first on May 25.

Both Audubon's and the Olive-backed Thrushes remained in the city longer than usual. Many of both species have been in the parks from May 14 to May 22. On the latter date a singular thing was noted in an Olive-backed Thrush. As it flew from the ground into an evergreen, one could see that it was crippled. Patient and careful stalking brought it into close range, when it was discovered that in some manner the right leg and foot were entangled in the outer tail feathers of the right side, making it necessary for the bird to stand and hop on one foot; this tail and foot entanglement kept the tail spread fan-wise, in 'display', as it were. It is a mystery as to how and why this condition occurred and was continued.

A small wave of Pinyon Jays passed through the city on May 16 and 17, and another on May 28; these dates are rather late for this Jay's spring visits to Denver, though it is true that it may appear here almost any time.

There is no summer resident whose advent here is more welcome to the writer than that of the Black-headed Grosbeak; it always arrives in full song, and it is a singer of great ability and sweetness. This Grosbeak reached the city on May 13, and started its house-hunting at once, so that now its house-keeping duties are in full swing. The writer never sees its frail nest without wonderment that it successfully holds a lot of lusty young ones.

A solitary Lincoln's Sparrow came to notice here on May 17. Perhaps it frequently escapes detection altogether because of its mouse-like habits of dodging under bushes, logs, and rocks. A goodly number of the summer resident species arrived here about on time and in their usual numbers, such as Kingbird, Arkansas Kingbird, Bullock's Oriole, Spurred and Green-tailed Towhees, Rock and House Wrens, Nighthawk, Traill's Flycatcher and Brewer's Blackbird. The writer has seen no Bronzed Grackles this season, though there can be no doubt of their being here. The Wood Peewee is either less common here this spring or more silent, probably the former, as it tends to vary in number from year to year.

A great pleasure was afforded to one of the writer's friends and her son, as well as to the writer, by a sight of a single Grinnell's Water Thrush. It was seen in Washington Park where it lingered two or three days. Unless he is much in error, this is the second record for it for Denver.—W. H. BERGTOLD, *Denver, Colo.*

PORTLAND (OREGON) REGION.—The spring season continued cold and backward in the Oregon district until well into May, and the bird movement seemed to be correspondingly late. Greater Yellow-legs were first noted on April 17, and a considerable wave of migrants, which includes Lutescent Warblers, Cliff Swallows, and Mourning Doves as new arrivals, appeared on the 23d. Western

Martins were first noted two days later, while on the 29th a long list of new arrivals were noted along the Columbia River between Portland and Astoria. The shore-bird flight included the Long-billed Dowitcher, Least and Western Sandpipers, and Hudsonian Curlew in abundance.

A flock of 25 Wood Ducks were noted in the Columbia bottoms on April 23, and a number of pair, presumably from this flock, which remained for several weeks before breaking up, are now breeding in this region.

During the first week in May a great shore-bird migration, principally Long-billed Dowitchers, Red-backed and Western Sandpipers, and Hudsonian Curlew was noted on Yaquina Bay. At this time a few of the winter visitors to the bay were still in evidence. White-winged and Surf Scoters were common and a few Western and Horned Grebes, Loons and Glaucous-winged Gulls were seen. On May 9, Stanley G. Jewett noted three Northern Phalaropes in spring plumage on Rogue River, an unusual inland record.

During the month of May the writer spent a week in Klamath County, which in spite of the drying up of the Lower Klamath Lake Reservation is still a wonderful bird country. While there an opportunity arose to visit the Lower Lake and a great colony of California Gulls were found to have re-established themselves in the flooded section of the lake-bed. Considerable numbers of Ducks of various species were also noted although the area of spring flood water is small compared to the original lake-bed.

The Canada Geese were nesting in numbers. The flooding of the usual nesting-sites has driven most of the birds to the edges of the swamps and causes them to seem more abundant than before. Whether there is any increase in numbers of Ducks or Geese is hard to determine. Several competent observers who had been familiar with the bird-life of the district for several years informed me that both Avocets and Black-necked Stilts have increased in numbers. A number of Avocet nests were discovered which had been flooded slightly, as attested by the alkali deposit on the eggs. In several instances the Avocets, apparently the same birds, had nested again farther up the bank.

At Klamath Falls, from the bridge across Link River, White Pelicans, Western Grebes, Ducks of various species, and Forster's and Black Terns were noted at various times. These birds, particularly the Pelicans, were quite tame. The Pelicans sat gravely about on the piling and logs or did absurd looking things with their big beaks while swimming about in the lake.

About June 1, Band-tailed Pigeons were reported as appearing in numbers along the Columbia River bottoms, and on the third a large flight of Pacific Nighthawks were noted in the outskirts of Portland.—IRA N. GABRIELSON, *Portland, Ore.*

SAN FRANCISCO REGION.—The last dates on which winter visitants were seen in the Bay Region have been reported as follows: Sharp-shinned Hawk, April 29; Cooper Hawk, April 25; Intermediate Sparrow, April 21; Golden-crowned Sparrow, April 24; White-throated Sparrow, April 29; Fox Sparrow, May 3; Cedar Waxwing, May 30; Townsend Warbler, April 12; Pipits (at Baumberg), April 27; Ruby-crowned Kinglet, April 27; and Hermit Thrush April 24.

Summer visitants arriving after April 12 were recorded as follows: Olive-sided Flycatcher, April 28 (Mr. Storer); Western Wood Pewee, April 18 (Miss Wythe); Black-headed Grosbeak, April 19 at Lafayette and April 24 in Berkeley; Yellow Warbler, April 23 (Mr. Storer); Toline Warbler, April 26; and Russet-backed Thrush, May 2 (Miss Wythe). A visit to Lafayette on May 4, in Higher Sonoran territory, showed that at that date Lazuli Buntings, Bullock Orioles, Wood Pewees, Yellow Warblers, Mourning Doves, Green-backed and Willow Goldfinches, and Western Bluebirds were abundant. The Long-tailed Chat was present but not in full song. Bush-tits, Warbling Vireos, and Bluebirds were busy with their nestlings; a Black Phoebe's nest was finished; Linnets, Goldfinches, and Grosbeaks were building. A Nuttall Woodpecker entered a nesting-hole several times but it was not possible to determine the condition of the inside of its domicile. In Berkeley (June 12) young Bush-tits, Lutescent Warblers, and San Francisco Towhees are following their

parents and begging for food; House Wrens and Western Flycatchers are still unfledged; young Robins have been seen; and young English Sparrows are looking fat and prosperous.

Four kinds of Swallows have been seen in localities widely separated. At Baumberg, on April 27, Cliff Swallows were building scores of nests under the eaves of an old barn. Barn Swallows were also present but in smaller numbers. On May 20, Violet-green Swallows were conspicuous in the Marin County hills above Ross Valley and Rough-winged Swallows were reported by Mr. Storer as present in a canyon near Muir Woods.

Migrants are not abundant among the land-birds in this region. The only records available are of Rufous Hummingbirds seen April 19 and Western Tanagers May 16 to 19. A flock of migrating Warblers were in evidence in Strawberry Canyon on May 19—a rainy day. A Cassin Vireo was seen on the university campus May 11 and in Claremont Manor May 30. The continuous presence of a pair of Creepers on the university campus suggests the possibility of a breeding record.

On April 20, Dowitchers were very abundant on the salt marshes of Alameda. A few Semipalmated Plover and Hudsonian Curlew and one Black-bellied Plover were also seen. On the fresh water at Baumberg, on April 27, Yellow-legs, Avocets, White Pelicans, and Bitterns were added to the list of waders. On May 28, baby Mallards in assorted sizes trailed after the parents on most of the lakes.—AMELIA S. ALLEN, *Berkeley, Calif.*

LOS ANGELES REGION.—On April 16, Bonaparte's Gulls were wearing their dark hoods, the Red-backed Sandpiper had assumed full summer plumage, and Black-bellied Plover were in various stages of change.

On April 17 occurred the first notable wave of Warblers of the season, including all the species that occur here except the Chat, which was not reported until the 24th. During the succeeding two weeks the early scarcity was compensated for by large accessions of both species and individuals.

April 19 marked the departure of Gambel Sparrows and Audubon Warblers from many city gardens, though passing migrants were noted for another week. An unusual city visitor was a Black-chinned Sparrow which stopped on this date to bathe and sing in a Pasadena garden made very attractive to travelers by the air-lines. On the same date arrived also the Ash-throated and Wright Flycatchers, the Western Tanager and the Lazuli Bunting. Black-chinned Hummingbirds, first noted April 10, were abundant in the canyons on the 19th, while Hermit Thrushes, Thurber Juncos, Lewis' Woodpeckers, Band-tailed Pigeons, and Robins were still here in large numbers. The last two species appear upon our lists the last time (April 23) when the Russet-backed Thrush arrived, overlapping the Hermit by about ten days. April 24 brought the Olive-sided Flycatcher and the Long-tailed Chat. April 26, Willow Goldfinches, Song Sparrows, and Linnets were at the height of their nesting and song season, and Macgillivray's Warblers were common.

April 26, Black Terns were found at Nigger Slough, on the same date as last year. There were also there 26 Long-billed Dowitchers in summer plumage, many Black-necked Stilts, a few Yellow-legs, 4 Cinnamon Teal, Rough-winged and Violet-green Swallows. April 28 brought many Townsend and Hermit Warblers. April 30, Black-headed Grosbeak had young out of the nest, a California Thrasher was feeding young in nest, and Lawrence's Goldfinch and Long-tailed Chats were numerous.

May 2, a trip was made to one of the canyons of the Sierra Madres, where the Violet-green Swallows were found at their accustomed nesting trees, the Olive-sided Flycatcher at its station, and a nest of the Thurber's Junco was found, containing four eggs. Townsend and Hermit were the most abundant Warblers. Warbling and Cassin's Vireos and Flycatchers of many kinds were numerous, California Purple Finches and Canyon Wrens were in song, and Mountain Quail were seen. The day's list totalled forty-four species. This walk has been taken annually for a number of years, and comparative lists kept.

Full streams have again brought Water Ouzels down to the lower parts of the canyons from which they have been absent for several years past, due to the low stage of water.

May 10, the contributor to 'The Season,' from San Francisco, honored the writer with an invitation, through a mutual friend, to go in search of Blue Grosbeaks. Fortune favored us, not only with the desired Grosbeak but also with Lazuli Buntings, Costa Humming-birds, Purple Martins, an Egret, and many more common species of both land- and water-birds. Western Blue Grosbeaks have been recorded in many different localities, ranging from the desert at Thermal to the hills of Whittier and ocean shores near Balboa. May 30, the individual seen on the 10th was again found at the same place, in full song and accompanied by a mate. It was recognized as the same bird by its immature or changing plumage, only the head being blue, with a few traces of blue in the body plumage. Four other full-plumaged males were seen on that date. June 1, a pair was found feeding two young that were perching in blossoming mustard.

May 14, at an altitude of about 6,400 feet, in Upper San Antonio Canyon, Warblers in song were the Piliolated, Yellow, Black-throated Gray, and Audubon's. All except the last were very common but only one pair of Audubon's was seen. Western Tanagers and Black-headed Grosbeaks were numerous, and Olive-sided Flycatchers called from the tops of the tall spruce trees. Large numbers of Pine Siskins and many Cassin Finches were feeding among the alder catkins.

May 16, Miss Helen S. Pratt reports seeing Black Swifts about a cliff and waterfall far back in the San Gabriel range. Vaux Swifts were observed with Swallows over the Arroyo Seco, June 1. Purple Martins are frequently seen about buildings in the center of town and at Echo Park and are undoubtedly increasing.

May 25, at Nigger Slough, Black-necked Stilts were apparently nesting, as one of the birds advanced to meet the observers and threw itself upon the ground in an agony of beseeching. Its feelings were spared, perhaps the more readily as the attention of the party was claimed by a curious ceremony being performed by four other Stilts nearby. After some passages at arms in the air, they alighted, partners facing each other and executed a series of bows and stately steps, after which they flew away in pairs in opposite directions. On this date a Pied-billed Grebe was followed by two young, and many shore-birds were seen, including eight Long-billed Curlew.

May 30, Least and Forster's Terns were numerous at Balboa, and in the inner bay were six Great Blue Herons, one Egret, and five White Pelicans. The Pelicans are currently reported to fly back and forth from tide water to Lake Elsinore daily. Seven notable flights of White Pelicans have been observed from Mt. Wilson and Pasadena this spring, totaling many hundred birds. One large flight of Swans was reported and three flights of Little Brown Cranes.

Other flights of Cranes have been noted in the Colorado desert, where several parties of our observers have gone this year. Lark Buntings were seen in migration about the middle of April, as were also Swainson's Hawks. A Black-and-White Warbler was taken by a local ornithologist. Other birds seen by our members in various localities in the Colorado and Mohave deserts are as follows: Cactus Woodpecker, Cactus Wren nesting, Rock Wren nesting, Sage Sparrow nesting, Black-chinned Sparrow, Black-throated Sparrow, Vermilion Flycatcher, Plumbeous Gnatcatcher, Verdin, Crissal Thrasher, Leconte's Thrasher, Gambel Quail, Scott's Oriole, Phainopeplas were very numerous, feeding on the desert mistletoe.—FRANCES B. SCHNEIDER, *Los Angeles, Calif.*

Book News and Reviews

PHILIPPINE BIRDS FOR BOYS AND GIRLS.

By RICHARD C. MCGREGOR and ELIZABETH J. MARSHALL. With illustrations by MACARIO LIGAYA. 8vo., 138 pages, 6 colored plates, 26 line cuts. Price, \$1.50, ppd. Published by the authors, care of the Bureau of Science, Manila, P.I.

Thirty Philippine birds are described and figured in this little volume which makes an admirable first book of birds for children and grown-ups as well. The text is well adapted to attract and instruct the audience to which it is addressed and the illustrations, particularly the pen and inks, are most pleasing.—F. M. C.

The Ornithological Magazines

THE CONDOR.—Serious students of birds will find much of interest in the general articles of the March number of *The Condor*. Pemberton gives an interesting and well illustrated account of a visit, in May, 1921, to 'A Large Tern Colony in Texas,' between Brownsville and Point Isabel. Here no less than eight species of Terns were found breeding on three islands. In order of abundance the list included the Gull-billed, Common, Least, Caspian, Royal, Black, Cabot's, and Forster's. It is gratifying to learn that the Gull-billed and Least Terns are still abundant in this remote corner of Texas.

In 'Notes on Fox Sparrows in California in the Autumn of 1921,' Joseph Mailliard continues his studies on the migration of these interesting birds along the northern coast of the State. From Requa south to the Mattole River practically only one subspecies was found—the Sooty Fox Sparrow (*Passerella i. fuliginosa*).

In 'A Study of Roosting-Holes of the Red-shafted Flicker,' Stoner gives the results of his examination of an old wooden building in the outskirts of Benicia in which there were seven large and nine smaller holes drilled by Flickers, not for nesting-sites, but mainly to secure shelter on rainy and frosty nights.

'A Law Governing the Elevation of the Nesting-Site' of Passerine birds has been

worked out by C. K. Averill from a study mainly of Warblers, Finches, and Thrushes. He concludes that birds with short, round wings nest low while those with long, pointed wings may nest high or low. Measurements of wing and heights of nests given in the tables seem to bear out his conclusions.

Among the brief notes on page 63 is a record of "a pair of San Diego *Tilimouses* (*Baeolophus inornatus murinus*)" collected near Palmdale, which are "most like *murinus* but are not typical of that form." It is to be hoped that this plural is *not* typical of the form advocated by the author of the note for the names of such birds as the Goose and the Grouse!—T. S. P.

WILSON BULLETIN.—Volume XXXIII for 1921 has been concluded since our last notice a year ago. We are immediately impressed by the increase in size, the improved quality of paper, the attractive illustrations, and, above all, the improved calibre of the articles. The editors state that the file of papers awaiting publication far exceeds the capacity of the Bulletin to handle. This is regrettable from many points of view, but invariably results in raising the standard of the articles. Another new feature is a section entitled 'Notes—Here and There' conducted by the Secretary, Mr. Albert F. Ganier, whose activities the Club has good reason to appreciate.

Turning now to the articles, it is a matter of regret that space prevents more than brief notices of the more important. In the June issue, Frank L. Burns has a further installment of his paper 'Comparative Periods of Nestling Life of Some North American *Nidicolæ*,' presenting valuable data in a neglected field, which are concluded in the December issue. Of special note is an article in the September number on Nebraskan Tyrannidae by Myron H. Swenk and Ralph W. Dawson. This article, as well as shorter notes by the senior author in other issues, bears the stamp of thorough scientific investigation backed up by judicious col-

lecting, and the status of eastern and western species in the state becomes capable of clearer definition through their researches. In the same issue a paper by J. A. Spurrell, concluding an account of the 'Land Birds of Sac County, Iowa,' suffers by contrast. While undoubtedly of value, it bears the obvious stamp of incompleteness, and the data submitted could be greatly improved by five years' more observation.

A most interesting article in the December issue is on the 'Summer Birds near Lake Caddo, Texas, by Alvin R. Cahn, a region practically unknown ornithologically and still comparatively wild and inaccessible. Mr. Cahn made the most of his opportunity, and records such interesting birds as Attwater's Prairie Chicken, the Wild Turkey, and the Wood Duck, the latter in great abundance. W. L. McAtee contributes a paper summarizing the results of ten spring bird lists made near Washington, D. C. The most important part is the preliminary discussion of methods of procedure, and the rules to be observed in making such a list. These rules are most timely in a day when more and more students are tearing madly over wider and wider stretches of territory in an effort to "run up a big list." There is no doubt that this is good fun, but the results are of small scientific value. A *walking* trip, however, over the *same* carefully selected route, made every year on exactly the same *time schedule* will yield data of real comparative value, especially if a careful count of individuals is taken. It is highly desirable, as McAtee points out, for two or more observers to see and hear every species listed and to remain together the whole time. The importance of such a check cannot be overestimated. We also heartily agree with the writer in the desirability of *seeing* every species. The somewhat lengthy discussion, however, of the risks taken in making sound records is too dogmatically written. Some of the author's examples of birds with confusing notes will seem absurd to many students whose ornithological attainments are way below those of Mr. McAtee, and we cannot help but suspect either the keenness of his ear or, what is much more likely, a lack of sufficient annual field experience with the birds of the region to

maintain his memory at par. There is no doubt that auditory memory is the first to go. No one can hope to distinguish similar Warbler songs, for instance, who does not hear them every available day every spring, and even when once well learned, lack of practice for two successive seasons is quite sufficient to destroy the ability previously acquired. On the other hand, it is equally impossible to make a good Warbler list unless the ear is in proper training to pick up all songs *worth looking up*. In the opinion of the reviewer, another rule might be added to make spring bird lists worth while, and that is that the proposed route should be covered as frequently as possible throughout the spring. Only in this way can the elusive though fairly common resident or summer resident species be obtained, by definitely locating nests or the restricted habitat of a given pair.

An inspection of the ten lists given indorses the suspicions already voiced. In the first place the variety of routes destroys much of potential comparative value. The percentage of 'bad misses' in most of the lists is also far too high. Thus the Nuthatch is on only three lists, and should certainly have appeared on all the last three, if there had been sufficient preliminary field work. The entire absence of the Tennessee Warbler from any of the lists is astonishing. In 1918 the reviewer was out daily in the Washington region. The Tennessee Warbler arrived on May 7 and was common on May 11 and May 12, when it was singing freely. No Warbler, except possibly the Cerulean and the Orange-crowned, is more easily overlooked, unless its *song is known*. In conclusion we might add that the citation of birds whose notes are similar, or cases (exceptional let us hope) where 'naturalists' could not distinguish between the sound made by cow, bird, or bullfrog (!), do not prove the general unreliability of sound records, any more than a list recently published of species which are indistinguishable when seen in life proves the unreliability of sight records.

The Field Notes in all three issues bear a pleasing stamp of reliability. In closing we congratulate the Club on a magazine of increased attractiveness and value.—L. G.

Bird-Lore

A Bi-Monthly Magazine

Devoted to the Study and Protection of Birds

OFFICIAL ORGAN OF THE AUDUBON SOCIETIES

Edited by FRANK M. CHAPMAN

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Bird-Lore's Motto:

A Bird in the Bush Is Worth Two in the Hand

WE HAVE lately compared the self-written histories of the boyhood of John Burroughs* and J. A. Allen† with each other, and with the record of their authors' achievements. These men had much in common in environment and temperament.

Burroughs was born in 1837, Allen in 1838; both died in 1921. Both were born and raised on a farm, Burroughs in the Catskills, Allen near Springfield, Mass. Both had brothers from whom in tastes and mentality they differed widely. Neither could attribute his distinctive characteristics to inheritance. Both were direct, simple, sincere, and unaffected, shunning society but loving companionship. Both had a pronounced interest in nature, but one was born a poet and the other a scientist; and each developed true to type, but Burroughs was much longer in finding himself.

The inherent desire to study nature, which made Allen one of the foremost technical naturalists of his time, was soon manifested, and was too clearly defined and insistent to be denied. Burroughs' longings were more vague. He was primarily responsive to literature and describes how the reading of certain passages from the 'Life of Washington' always overwhelmed him with a wave of emotion. A strange word at once commanded his attention. Birds, mammals, toads, and insects all attracted him. He used to watch and woo the little piping frogs and induce them to sit in his open hand and pipe; and creep on hands and knees to see the partridge

drum. He watched the mud-wasps building their nests and studied the habits of bumblebees. But this sympathetic interest in the various forms of life about him was not accompanied by the deeper, stronger feeling which characterizes the original investigator. The boy Burroughs appears to have made no collections. He knew nothing of specimens or of the science of natural history.

Allen, on the other hand, without ever having met a naturalist or seen a book on nature began at the age of thirteen to form collections of birds, rocks, and plants, and his specimens were measured, weighed, and named. Thus he gave a wholly spontaneous expression to the desire to acquire that definite type of knowledge which can be obtained only by close personal inspection. He collected to gratify a desire for knowledge, not a passion for acquisition. With unswerving steps he followed the star of his destiny. Guided first by his own longings, an amateur taxidermist, a school teacher and an academy professor were links in the chain of fate which brought him straight to the care of Louis Agassiz. With his feet now firmly on the road, his course was ever upward.

Burroughs, less fortunate, heard no such unmistakable call. Leaving the farm at the age of seventeen, for the ensuing ten years he taught in rural district schools. For the succeeding decade he was a clerk in the Treasury at Washington. It was during the latter part of this period that the 'response to literature,' which was perhaps his dominant trait, found an outlet in an essay on 'Expression.' And when, soon after, he decided to make nature his theme, the experiences of his boyhood came to 'fruit and flower' in his mind and 'Wake Robin' was the memorable and imperishable result. Burroughs had now found himself. The farm at Riverby was purchased, and the Bark Study and Slab-sides became laboratories wherein through the alchemy of his mind Burroughs transmitted experience and impression into the living word.

So these two farmer boys, in their very different ways, fulfilled the promise of their youth, one through the sentiment, the other through the science of nature.

*"My Boyhood." Doubleday, Page & Company.

†Autobiographical Notes. Am. Mus. Nat. Hist.

The Audubon Societies

SCHOOL DEPARTMENT

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THE HOME-LIFE OF BIRDS

NEST-BUILDING AND EGG-LAYING

At no time of the year are birds more interesting than during the nesting period. The throngs of migrating birds bring out their hosts of admirers during April and May; the morning and evening choruses of courting birds draw a response from others during May and June; but the nesting birds are the most fascinating to the quiet observer. The hunting for the nests and the watching of the daily life about the birds' homes hold thrills that are never known by those who put away their glasses when the migration is over. In the last number of *BIRD-LORE* we discussed the courtship of birds; this time let us begin with the mated birds and the building of the nest.

In the beginning it might be mentioned that most birds are monogamous, that is, they have the same mates throughout the period of the dependency of the young. With birds the entire cycle from birth to maturity occurs within a comparatively few weeks. The home is built, the eggs are laid, the young are cared for until they become entirely self-supporting, with many birds, all within the period of a month or six weeks. With the human species this cycle of events requires anywhere from twenty-one to forty years depending upon the number of children. It is fair, then to say that birds are monogamous, even though they may change mates from year to year, or even between broods, as is sometimes the case, so long as they do not maintain two mates at the same time. Some birds, particularly those that do not migrate, probably retain the same mates year after year and, even among migratory birds, the same two birds may resort to the same nesting-spot year after year and remate. We have very little definite information upon this subject, however, and it is one of the problems which 'bird-banding' should throw much light upon. In this, as in most aspects of the home-life of birds, there is as much individual difference as there is with the human species, which makes it difficult to generalize upon but most fascinating to observe. Indeed the similarity of their lives and actions and responses to our own is so striking that it has led some nature writers to endow them with an intelligence and power of thought that is not justified by the facts. Some birds are remarkably faithful to one another while others have much greater attachment for the nesting-site than they have for their mates. If one of a pair of Canada Geese is killed or permanently

separated, the other remains single for years and perhaps never remates. On the other hand, with the majority of birds, if one is killed, a new mate is secured within a few hours.

A few birds, like the Pheasants and, probably, most Grouse, are regularly polygamous and others, like the House Wren (and probably other species of Wrens), Red-winged Blackbirds, Great-tailed Grackles, and doubtless other



THE CANADA GOOSE DEFENDING ITS NEST

The Goose (in the foreground) crouches over her eggs while the gander grasps the intruder with his bill and beats him with his wings. (Birds nesting in captivity)

species, frequently so; and individual cases can be expected occasionally with almost any species, should there chance to be a preponderance of females, a condition which rarely happens. Polyandry, the mating of one female with more than one male, may likewise occasionally happen, particularly if a stronger male is able to drive away one that is already mated. It is not regularly the case with any bird unless it be the Cowbird, and of its domestic relations we still know too little to say definitely.

A few birds are communistic: they build a common nest in which all the females lay eggs and then share the duties of incubation and rearing the young. This is particularly true of the Anis of tropical and subtropical America, though many of the African Weaver Birds and the Palm Chats of Santo Domingo are communistic to the extent of building a common roof beneath which each pair builds its nest. There are slight indications among our colonial-nesting Swallows that they may be leaning toward communism.



A MALE ROSE-BREASTED GROSBEAK INCUBATING

This is one of the few species in which the bright-colored male assists in incubation

After the birds are mated the first thought, of the female at least, is the building of the nest. The male has already selected the general nesting area or territory in which he has been singing and which the female has accepted by accepting him. It is her duty, however, to select the actual site where the nest is to be built and to do most if not all, of the building. With most, if not all, species of Wrens the building of 'dummy nests' by the *males* is a common practice but is apparently rather part of a courtship performance, for they are never used by the female. The male House Wren, for example, arriving before the female, proceeds to fill every nesting-box and cranny in the vicinity full of sticks and may even build quite well-shaped nests. When the female

arrives and accepts him for a mate, however, she does not at the same time accept the home which he has built; for even though she may decide to use one of the boxes where he has already started a nest, she usually proceeds to throw out all of the sticks which he has laboriously brought in before starting a nest of her own. I have never known any bird in which the males and females worked equally at nest-building though with many of the common birds the male makes a pretense at helping. It is his duty to see that no other male or even female of the same species intrudes, and this takes so much of his time that, though he may accompany the female back and forth on her trips, he has little time or inclination for gathering nesting material. Judging from the way the female usually treats his occasional offering of nesting material, it would seem that his lack of experience has so warped his judgment that he does not know the proper material when he sees it.

This brings up the question of what determines the proper nesting material for each species. Practically all birds build nests that are characteristic of the species. The materials vary somewhat in different localities depending upon what is most convenient but, in

general, House Wrens use twigs, Bluebirds use grasses, Yellow Warblers use cotton, and so on, though often curious substitutes are employed. I have, for example, a Wren's nest built largely of hair-pins and wire clippings, and a Robin's nest in which the customary grasses were replaced by long, narrow strips of paper from a nearby paper factory. But only such materials are used as permit the bird to build the type of nest characteristic of the species. Baltimore Orioles normally weave their nests from vegetable fibers such as the inner bark of milkweed. They will take pieces of yarn or string or horse-hair just as readily but never, to my knowledge, will they use sticks, straws,



MALE CHESTNUT-SIDED WARBLER ON GUARD

When the male bird is brighter than the female, he usually does not condescend to incubate but either feeds the female on the nest or stands guard awaiting her return from feeding excursions.

This species does either way

or grasses, though grasses are regularly used by the Orchard Oriole. Marsh-birds regularly use the dried sedges or rushes or marsh grasses; field-birds use grasses and horsehair; woodland birds use dead leaves, mosses, and rootlets, and so on. The materials with which a bird comes most in contact are the ones employed in nest-building provided they conform to the general type of nest characteristic of the family.

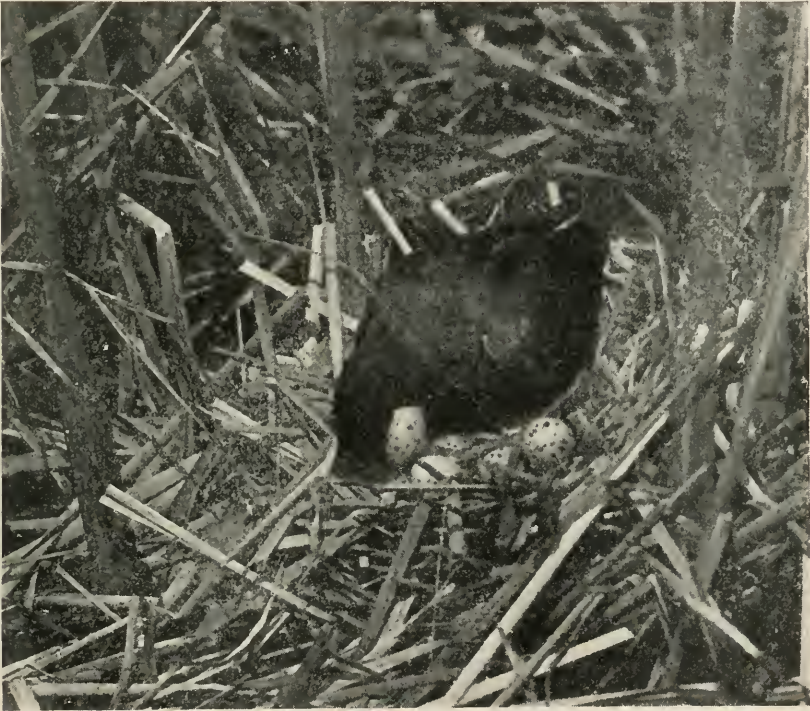
Birds that spend a great deal of time on the wing and come less into contact with nesting materials and nesting-sites show the greatest diversity both as to site and materials. Among our common Swallows, for example, the Barn and Cliff Swallows build nests of mud about barns or cliffs; the Tree Swallows build nests of straws and feathers in holes in trees or bird-houses; the Bank Swallows build similar nests at the end of holes which they excavate in sand-banks; and the Rough-winged Swallows utilize old Kingfisher burrows or natural crannies about cliffs or bridges or drain-pipes.

The factors that control the selection of the nesting-site are primarily the necessity for concealment, accessibility to the feeding-ground, and protection from the elements. If birds were capable of worrying over the possibility of the destruction of their homes, their heads would be white before their nests were started. As it is, they go about the selection of the site instinctively and finally decide upon one which is usually well concealed from their ordinary enemies such as cats, Crows, Hawks, Owls, Jays, Grackles, Wrens, weasels, skunks, raccoons, squirrels, rats, and snakes, as well as being fairly well protected from wind and rain, and accessible to their feeding-ground. The large percentage of nests that are broken up, however, attests the many dangers that ever beset the bird's home and the bird's life. I think it is no exaggeration to state that less than 10 per cent of the nests which I find each year endure until the young leave of their own accord. I would even venture to say that not one in twenty of the nests that are started succeed in housing the young to maturity.

The many ways in which birds circumvent their enemies by building their nests in inaccessible or inconspicuous places, or by decorating them with bits of paper, cobwebs, or lichens so that they will look like something else, would make quite a story in itself, but we must pass them over and merely mention the birds that have changed their natural nesting-sites to suit changed conditions. Some species are not adaptable and when conditions change they vanish; others are able to make the best of changed conditions and may even increase. Such are the Robin, all of the birds that nest in nesting-boxes, the Phoebe, and the Barn and Cliff Swallows that formerly nested only on cliffs but are now so familiar about our dwellings. The Chimney Swift that has almost forsaken the hollow trees for the chimneys is another good example of adaptation. One often hears of birds nesting in unusual places, such as moving street-cars or traveling cranes, under wagons left standing, in clothespin bags, in the pockets of scarecrows, etc., but they are always of these adaptable

species. It is almost beyond the realm of possibility to have a Yellow-breasted Chat or a Cuckoo or even a Catbird behave in such a manner.

Before leaving the subject of nesting we ought to try to answer the question of why birds build nests anyway. Some we know still lay their eggs on the ground without any nest whatsoever, and they manage to persist or else we would not have any Nighthawks or Whip-poor-wills. The same is true of many of the sea-birds like the Auks and Murres. At the other extreme are the Orioles and the Weaver Birds that weave such elaborate nests. Between



TURNING THE EGGS IS A NECESSARY DUTY ACCOMPANYING INCUBATION

Here is a Florida Gallinule attending to this requirement

the two we find all gradations of nest structure from those that merely scoop out a little depression to keep the eggs from rolling, like the Killdeer, or those that add a few grasses by way of a lining, like the Spotted Sandpiper, to those that build rather elaborate domed nests on the ground like the Meadowlark and the Ovenbird.

Of the birds that have raised their nests above ground to escape floods or terrestrial enemies, there are some that merely lift them by building a platform of dead leaves, like the Veery, or the Rails and Gallinules in the marsh; others build crude platforms of sticks in trees or bushes, barely sufficient to keep the eggs from rolling to the ground. Such are the nests of the Herons, the Mourning

Dove, and the Cuckoos. Crows and Catbirds have advanced a step further, for while they still use sticks they build deeply hollowed nests and line them with softer materials. Nests of the Yellow Warbler, Redstart, and Goldfinch, made entirely of soft materials, doubtless represent a still higher stage in the evolution of nests that culminates in the beautifully woven structures of the Vireos, Orioles, and Weaver Birds. Such is the present status of birds' nests and doubtless it indicates the various steps through which the more complicated nests have passed. If we would understand the real origin of nest-building, however, we must go back to the earliest birds when they first arose from their reptilian ancestors.

Doubtless their habits of egg-laying at that time were about the same as those of reptiles today. Turtles bury their eggs in the sand; lizards hide them in holes in stumps or decaying logs; snakes bury theirs in decaying vegetation; and alligators build nests of the same material in which they hide their eggs, and are the only reptiles which are said to take an interest in the welfare of the young later on. But, as in all other reptiles, the eggs are hatched by the heat of the sun or from the decaying material. Now it must be remembered that reptiles are 'cold-blooded' creatures and are not affected by great changes in their bodily temperature. A turtle basking in the sun may have a blood temperature nearly boiling while the temperature of the same animal hibernating in the mud may be near the freezing point. As its temperature drops, it becomes more sluggish, but its health is not affected. The warm-blooded birds and mammals, on the other hand, can endure but a very slight change from the normal temperature of their blood without ill effect. What is true of the grown bird is equally true of the embryo developing within the egg. Its temperature must be maintained or it will not develop and will soon die. There are a few birds, such as the Megapodes of the Australian region, which still rely upon the ancestral method of burying their eggs in the sand or in piles of decaying vegetation, but they lay their eggs at a time when the temperature is remarkably uniform in the places which they select. All other birds have to depend upon supplying the heat from their own bodies; that is, they have to incubate their eggs. The longest stride in the change from the reptile to the bird and the one which affected their habits even more than the development of wings and feathers, was this advance from a changeable to a constant temperature, from 'cold-blooded' to 'warm-blooded.' We have not the space, nor is it appropriate here, to go into all the differences which this change brought about, but we can point out that the need for incubating the eggs which followed gave rise to the nest-building habit. Birds that had been in the habit of nesting in holes in banks or in trees where they could remain with their eggs with no great inconvenience, were doubtless less affected. They did not have to learn how to build nests, except in so far as they had to learn to dig their own excavations instead of accepting natural cavities. Such is the habit of the Woodpeckers and the Kingfishers today. They excavate

their nesting cavities but they build no nests within for their eggs. Birds that had been in the habit of burying their eggs, however, and now had to lay them on the surface of the ground where they could be incubated, had other problems to meet. There were the floods, the cold, wet ground, the numerous terrestrial enemies, all threatening to destroy the eggs. It is easy to imagine, therefore, that those individuals that learned to raise their nests off of the ground were the ones that persisted until the habit was formed. The first nests were doubtless very crude and the beautiful structures with which we are familiar are no doubt the result of a gradual evolution as already indicated.

We have stated that nests are ordinarily built by the female birds though the male often makes a pretense at helping. The time required depends a good



A PAIR OF COWBIRDS

They have no home-life, but are parasitic upon other birds

deal upon the time at the disposal of the birds, but, with ordinary birds, like Robins or Blackbirds, it is about six days. Three days are spent on the outside and a like time on the interior. The same bird, however, if the first nest is destroyed while the eggs are being laid, might build an entirely new nest in a single day. A pair of Phœbes, on the other hand, under observation this spring, began repairing an old nest fully a month before any eggs were laid. Usually the nest is completed the day before the first egg is laid.

Incubation does not ordinarily begin until egg-laying is completed, so that all of the eggs will hatch at about the same time. Otherwise the first young to hatch would have an unfair advantage over the others in the nest. Occasionally one finds Owls or Bitterns beginning to incubate before all of the eggs have been laid, but they are, perhaps, less regular about egg-laying than most

birds. Most birds lay one egg each day at about the same time but larger birds, like Hawks, Owls, and Geese, have intervals of two days.

As the time for incubation approaches, the bare area on the middle of the breast becomes suffused with blood and is termed the 'brood spot,' and the bird becomes 'broody.' Ducks and Geese which have practically no bare area on the breast then proceed to pull out the down from that region so as to bring the eggs in direct contact with the skin. Incidentally, this down forms a blanket with which the eggs are always covered when the Duck leaves them to feed.

When both birds are colored alike, they usually share equally the duties of incubation, but when the male is brighter than the female, he is not often seen on the nest, the Rose-breasted Grosbeak being an exception. Ordinarily, he either stands guard on the edge of the nest until the female returns from her feeding excursions or else brings food to her. Sometimes he feeds her on the nest but more often he calls, as he approaches, and she flies out to meet him. The easiest way to find a Marsh Hawk's nest is to listen for the returning male and then note from what spot the female flies up to meet him and take the food from his claws. The care of the female by the male is carried to the extreme by the African Hornbills in which species the male walls up the opening to the nest in a hollow tree with mud until only the female's bill can be protruded. He then proceeds to bring her all her food and likewise that for the young later on, for she remains imprisoned until the young are nearly full grown. So great is the task of providing the entire menu for the whole family, we are told, that he becomes excessively thin and often succumbs during inclement weather.

With a few birds the males do most or all of the incubating and care of the young. This is said to be true of the Emeus and Cassowaries of the East Indies, the Rheas and Tinamous of South America, of Ostriches, at least in captivity, and more particularly of our own Phalaropes. In the case of the Phalaropes the males not only do all of the domestic chores but they are likewise less brightly marked than the females, apparently a complete reversal of the sexes.

The period of incubation depends largely on the size of the egg and the nature of the young, larger eggs and those from which precocial young hatch requiring longer periods. The actual time varies from 10 days in the case of the Cowbird to from 50 to 60 with the Ostrich, or even 70 to 80 with the Emeu. Sparrows require 12 to 13; Thrushes, 13 to 14; Hens, 21; Ducks, from 21 to 30, depending largely on the size; Geese, 30 to 35; etc. An apparent exception is the Hummingbird which requires 14 to 15 days but has the smallest egg of all. This may be due to the fact that she receives no help whatsoever from the male and the eggs may become unduly cooled during her feeding excursions, for it is a fact that unusual cooling of the eggs delays the hatching if it does not entirely prevent it.

The extremely short period of the Cowbird is perhaps an adaptation to its parasitic habits, for if the young Cowbird hatches ahead of its foster brothers, it has a better chance of getting most of the food and either starving them to death or ousting them from the nest.

Young birds are assisted in getting out of the shell by what is called the 'egg-tooth,' a hard calcareous tubercle which develops on the upper mandible and which is used as the cutting tool in 'pecking' the egg. The bills of all embryo birds are very soft, making such an instrument necessary. This egg-tooth persists for several days after hatching and is quite conspicuous on some birds. Many birds, particularly Grouse and Quail, cut a neat little cap out of the larger end of the egg with this egg-tooth, but others break the shell irregularly. Most birds are very careful to remove the empty shells from the nests, either swallowing them or carrying them off to some distance. Birds that have precocial young, however, that do not stay in the nest for any time after hatching, do not bother with the empty shells.

During the period of incubation the eggs have to be turned once or twice a day so that they will be heated evenly and so that the membranes will not adhere to the shell and prevent the free passage of air to the interior. Some birds turn the eggs with their feet and others with their bills, and usually it is at the time that the female returns from a feeding excursion. The accompanying photograph of a Florida Gallinule shows the female bird turning the eggs with her bill.

(To be continued)

SUGGESTIONS

1. What is meant by monogamy among birds and what birds are monogamous?
2. Have you any definite information upon the mating of the same two birds two years in succession?
3. Have you ever known birds to change mates between broods?
4. What is meant by polygamy among birds and what birds are polygamous?
5. Have you ever known House Wrens to be polygamous? Any other species not regularly so?
6. What is meant by communism among birds and what birds are communistic?
7. Which sex selects the nesting-site and which sex builds the nest?
8. What is the duty of the male before and during nest-building?
9. Have you ever observed a male bird assisting in the building of the nest? To what extent?
10. What determines the nesting material used by birds? The general type of nest?
11. Have you known of any birds using unusual nesting materials or nesting in unusual places?
12. What determines the selection of the nesting-site?
13. What is the probable origin of the nest-building habit in birds?
14. Outline the probable evolution of the more elaborate nests that we know today and illustrate the steps by examples of present day nests that represent the different stages.
15. Why do some birds that lay their eggs in holes build nests and others not?

16. Why do birds incubate their eggs? When does incubation begin? How long does it last with different birds?
17. What is meant by 'warm-blooded' and 'cold-blooded' and what changes must have taken place in the birds' habits when the change from one condition to the other evolved?
18. How long does it take a bird to build its nest? Have you any original observation upon this?
19. What is meant by the 'brood-spot' and what is its function?
20. What is the 'egg tooth' and what is its function?

FROM YOUNG OBSERVERS

AN EAGLE'S NEST

I am at some lakes and my Daddy and I were paddling in a canoe when we heard a noise from a bird which afterwards I found was an Eagle, and it flew to a big nest which an Indian said was about twenty-five years old. We saw the Eagle in another place, too. Once when I was wandering through the woods I saw a Red-headed Woodpecker pecking on a drooping dead branch, and he pecked and pecked till the limb broke. The Woodpecker was on the under side and it fell and fell till within about 4 feet from the ground, when he fluttered and got away. He had cut off the limb he was sitting on.—GRISCOM MORGAN (age, 9 years), *Englewood, Ohio*.

A TENANT FOR OUR BOAT

One sunny day in April I was lying on the grass reading when suddenly I heard a sweet twittering song. Looking up I saw a small bird. It had a brown back and tail. Its breast was a sort of gray and brown mixed. It was about the size of a female Sparrow and it twisted its tail in a comical fashion, singing a short song over and over again. For about a week I saw it either in an apple tree or an old brush-heap, always near a large skiff which we had taken out of the river and turned over before the ice formed last fall. In about two more days another bird came which was about the same size and color as the first. I began looking around but could not find the nest which I knew was somewhere near. The next day as I was going past the skiff I tapped it with a stick which I had in my hand. Almost instantly a small form glided noiselessly out from under the boat. I peeped under and there, on the front seat was the nest. It was of rough structure on the outside but the center, which was about the size of a hen's egg, was lined with feathers as soft as down. This little House Wren is a very busy worker, eating bugs and insects that destroy crops. It also makes everybody cheerful by its singing.—FORREST LEESON (age, 14 years), *Belpre, Ohio*.

INVITATION

A BIRD PAGEANT FOR THE DEDICATION OF A BIRD BATH

Compiled for the Audubon Society of
Robert E. Lee (No. 30) School

From those poets who love birds, especially Percy Mackaye.

JANUARY 18, 1922. SAN ANTONIO, TEXAS

CAST OF CHARACTERS IN ORDER OF APPEARANCE

ORNIS: A Fairy LOIS CUNNINGHAM

Annual Visitants to San Antonio

CARDINAL	Helen McDavitt
DOVE	Earle Harle
KILLDEER	Marie Frazor
SUMMER TANAGER	Paul Walton
ORCHARD ORIOLE	Enos Reynolds
CEDAR WAXWING	John Herren
BLUEBIRD	Edna Taylor
TUFTED TITMOUSE	Edna Grote
SCARLET TANAGER	Callie Dixon
QUAIL	James Butcher
YELLOW WARBLER	Thelma Krause
SCISSOR-TAILED FLYCATCHER	John Kight
KINGFISHER	Marguerite Uhr
GREAT-TAILED GRACKLE	Nat. Adler
MEADOWLARK	Clinton Herring
RED-HEADED WOODPECKER	Hugh Magill
FIELD SPARROW	Jerry Oates
BLUE JAY	Celso Cuellar
VERMILION FLYCATCHER	Inez Ankerson
INDIGO BUNTING	Charles Pabst
RUBY-THROATED HUMMINGBIRD	Sidney Stewart
WREN	Irma Mesch
ROBIN	Nellie Jordan
MOCKING BIRD	Robert Loessberg

Ornis comes forth from the retreat, bearing a pitcher of water. She mounts a little platform made of tree branches by the covered bird-bath. She speaks to the children who are seated in a circle nearby the bath:

Come gather round this covered spot,
Ye children of this city school.
Be silent! Let the laughter of your play
Be still! Hearken with quick ears,
And you shall hear of treasure
To which you all are heir.

You have been robbed, O city children;
You have not known your feathered friends.

Bird - Lore

The hostile city drives them forth.
 No longer here they nest and fly;
 Deep in the woods they've fled to sing.

They are God's choicest singers.
 They welcome every rising sun,
 While you, perhaps, are still abed
 With sleepy head.
 They pour their soul abroad
 In cheerful ecstasy.
 They fly with all the winds
 And visit many lands
 Which you, perhaps, will never know.

They know the secret streams among the hills.
 They probe the bosoms of the trees;
 And with exploring wing
 They search through every thicket.
 The wild flowers bend beneath their speckled breast,
 And Autumn's ripened seeds are carried far and wide
 For Spring to dress in glowing color.
 They wage a daily battle with the worms
 That would destroy your growing food.
 They stitch a tiny house with magic art,
 And soon bright-colored eggs
 Are hatching 'neath the mother's breast.

The birds are wingèd joys;
 But you must gentle be,
 If you would win their friendship.
 If you do follow them with love and care
 They'll lead you to much health and happiness;
 They will charm you all your life;
 They will teach you truest knowledge.

If you will only follow
 Over wooded hill and hollow,
 Only watch and silent be
 By the stream and 'cross the lea,
 They will sing their sweetest song,
 Make you glad the whole day long,
 Make you wise in woodland lore,
 Make you rich in Nature's store.

If you promise to be gentle,
 I will draw this covering mantle.
 Here the birds may rest awhile
 In their travels many a mile,
 Bathe and drink from this tiny pool,
 Here in sight of you in school,
 And perhaps you'll wish for wings,
 While the robin dips and sings.

Now I'll call to the birds of the air,
They may e'en now be lingering near.

Come here, come here, comrades coy,
From hill and swamp and heather;
Make joy, make joy together!
Slant wing and sleek feather,
Tawny beak and scarlet vest,
Bulging bill and cocking crest,
Hither!

Tumble out of nest,
'Topple out of windy weather
Here, hola!

Up from dew-grass, down from aerie,
With preenings quaint,
Purple dyes and crimson paint,
Here, hola in merry state!

Ornis, Ornis,
Summons you to dedicate
Here a new bird-bath!

The birds come running in zigzag paths, with stops and starts all converging round the bath, and with a continual chorus of bird-calls:

Cardinal	<i>Good-cheer!</i>	Scissor-tail	<i>Ka-quee!</i>
Dove	<i>Coo! Coo!</i>	Kingfisher	A crackle
Killdeer	<i>Killdee!</i>	Meadowlark	Whistling boy
Field Sparrow	<i>Cher-wee, dee-e-e</i>	Red-headed Woodpecker	<i>If! if!</i>
Summer Tanager	<i>Chip! Chip!</i>	Grackle	Throaty noise
Orchard Oriole	<i>Hit-e-e-</i>	Blue Jay	<i>Jay! jay!</i>
Cedar Waxwing	A whistle	Vermilion Flycatcher	Long whistle
Bluebird	Soft whistle	Indigo Bunting	Short whistle
Tufted Titmouse	<i>Pete! pete!</i>	Hummingbird	Noise with wings
Scarlet Tanager	<i>Chip! chip!</i>	Wren	<i>Whee-udelt</i>
Quail	<i>Bob-white</i>	Robin	<i>Cheerily, cheerup</i>
Yellow Warbler	<i>Witch-e-wee-o</i>	Mocking Bird	A whistling boy

While Ornis pours water from her pitcher into the bath, the Birds dance and sing, now and then sprinkling water on each other with their fingers:

Veery, veery! vireo!
Cedar waxwing! warbler wary!
Ori-ori-oriole!
Here is sanctuary!
Jack daw rath,
Scissor-tail-twitcher
Drink's in the pitcher
Dip in the bath
Dew's in the bath
Rain's in the pitcher
Dawn's the greenwood eerie;

Here, O, highhole!
 Redpoll!
 Oriole
 Vireo, vireo, vireo!

ORNIS: Welcome O Birds
 Hither thou comest.
 The busy wind all night
 Blew through thy lodgings, where thy own warm wings
 Thy pillows were. Many a sullen storm
 Rained on thy beds
 And harmless heads;
 But now as fresh and cheerful as the light,
 Thy little hearts in songs doth sing
 Unto that Providence whose unseen arm
 Hath clothed thee well and warm.

The Birds dance a sprightly dance around the bath at the end of which Ornis steps down and speaks to some of the Birds in turn, placing her wand on their shoulders or touching their heads or hands. Now and then a bird replies.*

The birds crowd around Ornis and begin to move off in a dance with her toward their retreat singing:

Untamed, unshamed,
 On swift shy wings;
 Whom do we follow?
 Jubilant Joy!
 We dream,
 We drink from immortal springs,
 Hid away in a far-away hollow.
 Follow, follow,
 O girl and boy!
 By tree and stream,
 On land and sea,
 The heart that ever sings.

The birds disappear in their retreat with the vanishing birdcalls sounding as at first.

Led by Ornis, all the birds now come back and sit down in a semi-circle facing the audience. Ornis stands before the Principal of the school and says the following, to present the deed of gift, with all the signatures of the members of the Audubon Society engraved upon it:

ORNIS: Mrs. Schenck, the 1921 Audubon Society of Robert E. Lee (No. 30) School have had so much pleasure in bird-study that, before we finally depart from the portals of this school, we wish to leave behind some token of our gratitude. So we beg you to accept this bird-bath from us. And we herewith present to you an engrossed deed of gift of same, signed with our respective signatures.

COPY OF THE DEED

To the Robert E. Lee (No. 30) School, Mrs. K. S. Schenck, Principal.

We, the Audubon Society of 1921, make gift of a bird-bath this day in token of our gratitude for happy school days and in remembrance of our delightful study of birds.

Jan. 13 1922. San Antonio, Tex.

LOIS CUNNINGHAM,

President

Signed by all the pupils

*Owing to limitations of space, the clever dialogue between Ornis and the various birds has been omitted. It can be secured by interested readers from the Editor of the School Department.

The Audubon Societies

EXECUTIVE DEPARTMENT

Edited by T. GILBERT PEARSON, President

Address all correspondence, and send all remittances, for dues and contributions, to the National Association of Audubon Societies, 1974 Broadway, New York City.
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Any person, club, school or company in sympathy with the objects of this Association may become a member of it, and all are welcome.

Classes of Membership in the National Association of Audubon Societies for the Protection of Wild Birds and Animals:

\$5 annually pays for a Sustaining Membership
\$100 paid at one time constitutes a Life Membership
\$1,000 constitutes a person a Patron
\$5,000 constitutes a person a Founder
\$25,000 constitutes a person a Benefactor

FORM OF BEQUEST:—I do hereby give and bequeath to the National Association of Audubon Societies for the Protection of Wild Birds and Animals (Incorporated), of the City of New York.

INTERNATIONAL BIRD PROTECTION

An International Committee for the Protection of Wild Birds has recently been formed. Such action was taken at a meeting of bird protectors held at 36 Smith Square, London, on June 20, 1922. The following were present and took part in the proceedings: P. G. van Tienhoven, of Amsterdam, Holland; Dr. A. Burdet, of Overveen, Holland; M. Jean Delacour, of Paris, France; T. Gilbert Pearson, of New York City, and the following who are prominently connected with various bird-protective organizations in England: The Earl of Buxton, G. C. N. G.; Viscount Grey, of Fallodon; William L. Sclater, H. J. Massingham, Frank E. Lemon, Mrs. Reginald McKenna, and Dr. Percy Lowe.

Those present formed themselves into a temporary committee to serve until such time as their respective societies shall have opportunity officially to appoint representatives on the committee.

Various matters in connection with wild-bird protection, of mutual interest to the various countries involved, will at once be taken up. Plans were also made for closer coöperation between the various societies in the matter of exchange of information, printed and otherwise, so that all may keep in close touch with what is being done elsewhere in the world. Bird-protective societies in countries not represented will be invited to unite with the movement and appoint representatives.

IMPRESSIONS OF A BIRD-LOVER IN FRANCE

As the steamship 'Savoie' approached the French coast on May 13, a flock of Kittiwake Gulls appeared and conveyed us until the night approached. Next day the Black-backed Gulls came, and in the afternoon Herring Gulls took up their station in our wake and beat their way shoreward until the anchor rumbled down in the mouth of the

Seine, as the setting sun lighted up the cliffs of Havre.

The first land-bird seen in France was a Goldfinch, quite differently attired from our American bird that bears this name. Jackdaws I have seen feeding in the public gardens of Paris and standing on the shell-shattered arches of many a war-ruined church of

northern France. A breeding pair of Kestrels were crying about the injured towers or perching on the necks of the broken gargoyles of the Cathedral of Rheims.

'English' Sparrows are to be seen, although nowhere as abundant as in New York or Chicago. A pair have their nest in the crown of an angel standing over the portal of the Temple of Justice in Paris. Others were seen feeding their young in the shell-splintered trees girting the *Chemin des Dames* eastward from Soissons. In all the cities and villages large black Swifts circle and dart under the eaves and above the roofs of the everpresent stone buildings. Their high, squeaking notes may be heard at all times of the day. They appear not to build their nests in chimneys but in holes and cracks of the houses. White-rumped House Martins make their cradles of mud on protected beams of church towers and about the homes of peasants.

In the fields, half a mile from the village of Chamery, is a little shrine to which many loyal Americans find their way. It is here that I first met the Skylark. It arose singing from the meadow and by a series of short,

fluttering flights ascended in an irregular spiral to a height of perhaps three hundred feet. Then, with wings and tail spread to the utmost and soaring uncertainly, like an injured aëroplane, it slowly sank for a time until suddenly, with half-closed wings, it volplaned to the earth but a few yards from the grave of the fallen Quinten Roosevelt. The whole performance required a little more than two minutes and not for one instant did the notes of the happy bird cease to pour forth in the still morning air.

On the evening of May 16, in Paris, I had the great pleasure of addressing a meeting of the French League for the Protection of Birds. This organization in France corresponds to the National Association of Audubon Societies in the United States. It was organized January 26, 1912. The present membership is about 600 and the annual fee for members is 10 francs. Since the beginning the League has published a magazine, *Bulletin de la Ligue Pour la Protection des Oiseaux*. It holds meetings for the members and offers cash rewards to officers of the Re-



CHATEAU OF CLÈRES, IN NORMANDY

Home of M. Jean Delacour, President of the French League for the Protection of Birds
Photographed by T. Gilbert Pearson

public who bring about convictions of persons who illegally kill wild birds.

It also presents medals now and then for distinguished achievements along the lines of bird-protection. Of late it has taken up the subject of encouraging the establishment of private bird sanctuaries, and issues metal signs for posting. Five hundred acres of the devastated Mormal Forest have been granted by the Government to the League as a sanctuary. Should the experiment prove successful other grants will follow.

France has neither National nor Provincial game-warden forces, such as we know in North America. The civil officers alone are responsible for enforcing wild-life protective measures, and, as may be expected, they show scant interest in this aspect of their duties. A hunting license is required. Few of the country people ever hunt or even possess guns. Furthermore, most of the game is found on private estates. Skylarks are legal game-birds. They are killed and sold in enormous numbers in all the cities of the land. Other small birds are trapped illegally and eaten, especially by the inhabitants of southern France.

"Tis apple blossom time in Normandy," and I am writing these lines in the beautiful Chateau of Cleres (Clair), the home of M. Jean Delacour, President of the French League for the Protection of Birds. The

500-acre estate is a magnificent sanctuary of wild life. In addition to the native birds, M. Delacour, who is a great traveler, has brought here 200 and more species of exotic forms ranging from Hummingbirds to Rheas. Many of these now inhabit the surrounding country; especially is this true of the Senegal Palm Doves, Barbary Doves, Australian Crested Pigeons, Ring-necked Parrakeets, Macaws, and various Pheasants. Interesting mammals have the run of the place also, and one may see antelopes, kangaroos, covies from Patagonia, and various deer. Here my gracious host has introduced me to many of his native feathered friends, such as the Pied Wagtail, the yellow-billed singing Blackbird, the Missel-thrush, the Rook, and the Cuckoo.

The chateau is one of the most historic in France. It dates from the eleventh century and as it is today so it has stood since the last additions were made in the sixteenth century. Beneath its roof kings of France have been entertained and many times its walls have been bitten by the arrows of the English long-bowmen.

It is peaceful and very beautiful at the Chateau of Cleres. Just now the chimes from the ancient village church are ringing and they are very sweet—these 'Chimes of Normandy.'—T. GILBERT PEARSON, *Cleres, France*, May 25, 1922.

A BIRD SANCTUARY IN THE BAHAMAS

In 1904 Dr. Frank M. Chapman discovered a very large colony of Flamingos breeding on the Island of Andros in the Bahamas. He also found that the birds were being killed and eaten by the natives. At his instance steps were taken which resulted in government restrictions against the killing of the birds. No adequate means were provided, however, for enforcing the law and the slaughter of the Flamingos has continued until the present time, when late reports indicate that only a pitiful remnant of the vast numbers found by Chapman still remains.

When this information became generally known, it caused a stir among those inter-

ested in the protection of birds, with the result that an order by the Acting Colonial Secretary of the Bahama Islands has just been issued creating a bird sanctuary of the southern part of Andros. The wording of this interesting document follows:

BAHAMA ISLANDS

H. E. S. CORDEAUX, *Governor*.

By His Excellency Major Sir Harry Edward Spiller Cordeaux, Knight Commander of the Most Distinguished Order of Saint Michael and Saint George, Companion of the Most Honourable Order of the Bath, Governor and Commander-in-Chief in and over the said Islands, Vice-Admiral and Ordinary of the same.

A PROCLAMATION.

WHEREAS, Under and by virtue of Section IV of The Wild Birds Protection Act, 1905, it is lawful for the Governor in Council to establish Reserves for the protection of any wild bird, and from time to time to vary, enlarge, or reduce the extent of such Reserves;

AND WHEREAS, It has been deemed expedient by the Governor in Council that all that portion of Andros South of the Southern Bight should be a Reserve for the protection of Flamingos;

NOW THEREFORE, I do hereby proclaim and give notice that all that portion of Andros

South of the Southern Bight shall be a Reserve for the protection of Flamingos as from the fifth day of April, 1922.

Given under my hand and the Great Seal of the said Islands at Government House, in the City of Nassau, in the Island of New Providence this 15th day of May, A. D., 1922, and in the Twelfth year of His Majesty's Reign.

By His Excellency's command,

(Sgd.) P. W. D. ARMBRISTER,
Acting Colonial Secretary.

GOD SAVE THE KING

M. P. 412-22.

RESULTS OF JUNIOR CLUB ORGANIZATION

When the fiscal year of the Junior Department of the Association closed on June 1, 1922, it was found that considerably more than 200,000 children had been enrolled in the bird-work the past year. It is a pleasure to announce that through the generosity of the anonymous donor who has made it possible to build up this great system of primary educational work in bird-study, the efforts will be continued another year. As usual, a different set of birds will be studied. The coming year special attention will be given to the following: Flicker, Blue Jay, Bluebird, Song Sparrow, Robin, and Catbird. Leaflets and colored pictures on these subjects will be supplied to all Junior members.

The widespread interest in this important phase of wild-life protection is manifested by the territory covered in the organization of Clubs throughout the United States and Canada. A fuller account of the accomplishments in the Junior work the past year will be published later in the annual report of the Association.

The following statement shows the distribution of Junior Clubs and Junior members enrolled up to June 1, 1922:

State	Clubs	Members
Alabama	12	559
Arizona	4	219
Arkansas	18	738
California	142	5,862
Colorado	51	2,301
Connecticut	184	6,977
Delaware	38	1,552
Dist. Columbia	2	50
Florida	176	5,963

State	Clubs	Members
Georgia	18	856
Idaho	10	412
Illinois	320	13,457
Indiana	181	6,700
Iowa	123	4,106
Kansas	44	1,543
Kentucky	25	1,023
Louisiana	7	219
Maine	42	1,471
Maryland	58	2,482
Massachusetts	497	18,231
Michigan	146	5,840
Minnesota	202	8,183
Mississippi	5	164
Missouri	110	4,081
Montana	27	1,115
Nebraska	79	2,897
Nevada	8	313
New Hampshire	40	1,404
New Jersey	243	10,689
New Mexico	4	182
New York	843	33,664
North Carolina	11	339
North Dakota	37	1,288
Ohio	616	22,562
Oklahoma	9	377
Oregon	32	3,635
Pennsylvania	607	25,086
Rhode Island	12	652
South Carolina	16	508
South Dakota	36	1,184
Tennessee	9	518
Texas	42	1,694
Utah	26	992
Vermont	25	1,052
Virginia	41	1,838
Washington	114	5,392
West Virginia	33	1,384
Wisconsin	159	6,139
Wyoming	8	274
Canada	358	11,571
British Guiana	1	26
Japan	0	20
Totals	5,851	229,787

NEW LIFE MEMBERS

Enrolled from March 1, 1922, to July 1, 1922

Ames, Mrs. James B.
 Bok, Mrs. Edward
 Book, Dr. R. D.
 Briggs, Mrs. L. Vernon
 Calkins, Mrs. Alice H.
 Case, Miss Marion R.
 Cory, Daniel W.
 Dodge, Mrs. M. Hartley
 duPont, Mrs. Pierre S.
 Fay, F. L.
 Frankel, Nathan
 Godwin, Mrs. Harold
 Harkness, Edward S.
 Hittinger, Jacob
 Holden, Mrs. Virginia Hawley
 Jones, Arthur B.
 Locke, Almon A.
 Mali, Pierre

Marburg, Miss Emma
 Matthies, Miss Katharine
 Mayer, Edward L.
 Metcalf, Mrs. L. S.
 Morss, Noell
 Porter, Miss Frances R.
 Richardson, C. Tiffany
 Sands, Mrs. Benjamin A.
 Sargent, Miss Laura
 Seaverns, Chas. F. T.
 Tucker, Mrs. Carl
 Van Law, Jesse Mead
 Warner, Mrs. H. A.
 Weil, Milton
 Whitney, Mrs. Eli
 Whittemore, Mrs. Harris
 Williams, E. Francis
 Yuille, Thos. B.

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Enrolled from March 1, 1922, to July 1, 1922

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 Allen, Miss Amy
 Allen, Charles Dexter
 Anderson Bird Club
 Anderson, Miss Katharine M.
 Armstrong, Miss Mary J.
 Ash, Miss Annie E.
 Ashbridge, The Misses
 Ball, M. J.
 Ballard, Mrs. May B.
 Baltzell, Dr. & Mrs. Wm. Hewson
 Bateson, John A.
 Bedell, Miss Dorothy M.
 Behr, Miss Minna D.
 Behrend, Dr. Moses
 Beitler, Abraham M.
 Bell, Gilbert E.
 Blair, Mrs. A. A.
 Blauvelt, Miss Bertha
 Blow, Mrs. Geo. P.
 Blunt, Mrs. H. W., Jr.
 Boies, Mrs. William J.
 Borden, E. Shirley
 Borden, Mrs. Jas. B.
 Bracken, Mrs. Francis B.
 Bratt, J. H.
 Brinckerhoff, Mrs. M. W.
 Brinton, Mrs. Willard C.
 Broone, Miss C. Cushman
 Brownell, Miss Eleanor O.
 Brylawski, A.
 Burck, Miss Florence H.
 Burr, Mrs. H. L.
 Canedy, Mrs. C. F.
 Capen, Geo. H.
 Cardeza, Mrs. J. M.
 Cassard, Harrison
 Chace, Miss Maud

Chiniguy, William F.
 Clegg, Mrs. Luther B.
 Clowry, Robert C.
 Cole, John N.
 Coleman, Miss Catherine A.
 Coleman, Master George Edward, Jr.
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 Cook, C. Lee
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 Evans, Miss Clara F.
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 Flory, Miss Mary B.
 Ford, Miss Clara A.
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 Foster, Dr. G. S.
 Fox, Dr. Joseph M.
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 Gaus, Miss Elizabeth E.
 Gingrich, Mrs. Cyrus
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 Gittings, James C.
 Gowen, Francis F.
 Grand, Brooks

NEW SUSTAINING MEMBERS, continued

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 Harding, Miss Annie Bigelow
 Heggland, C. M.
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 Maier, G. W. M.
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 Newark Bird Club
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 Simonson, Joseph C.
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 Smith, Mrs. F. C., Jr.
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 Sullivan, Miss Frances
 Symington, Fife
 Taft, Mrs. H. J.
 Taylor, Benjamin Irving
 Taylor, Miss Katharine F.
 Thomas Miss Maura G.
 Thorndike, Sturgis H.
 Thorpe, Mrs. W. H.
 Tinker, Miss Charity M.
 Tobey, A. F.
 Towns, Mrs. Hiram
 Tracy, Mrs. Amasa S.
 Tyson, Mrs. Frederic
 Van Duzer, H. B.
 Wahmeda Tribe of the Woodcraft
 League of America
 Walker, Gustavus A.
 Warner, Miss C. A.
 Watts, Mrs. Lillian Y.
 Weeks, Miss Leila M.
 Whitney, L. A.
 Whittingham, Mrs. G. H.
 Wiese, Mrs. Wm.
 Williams, J. Edgar
 Wilton Bird Club
 Winward, Miss Alice
 Wunderlich, Herman.



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|--------------------------------|--|
| 1. REDDISH EGRET—Blue Phase. | 4. LITTLE BLUE HERON—Changing plumage. |
| 2. REDDISH EGRET—White Phase. | 5. LITTLE BLUE HERON—Adult. |
| 3. LITTLE BLUE HERON—Immature. | 6. SNOWY EGRET. |

Bird-Lore

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OFFICIAL ORGAN OF THE AUDUBON SOCIETIES

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No. 5

Stories from Birdcraft Sanctuary

By MABEL OSGOOD WRIGHT

II. THE RIGHTS AND WRONGS OF BIRD-TRAPPING

IT IS one thing to set apart a piece of land and call it a 'Wild-Bird Sanctuary' and quite another to make it justify the name. Unless this land be guarded against enemies, both human and wild, either by a fence difficult to climb or by a constant intelligent patrolling by a man with a keen eye and steady aim, the very means taken to attract birds in unusual numbers is sure to be followed by a great increase in the dangers that beset bird-life.

The first half-year at Birdcraft was quite enough to convince us that the making of a sanctuary must be a militant rather than a peaceful process, and our first step was to obtain permission from the State Fish and Game Commission to destroy any form of wild life that should prove detrimental to the object for which the place was developed.

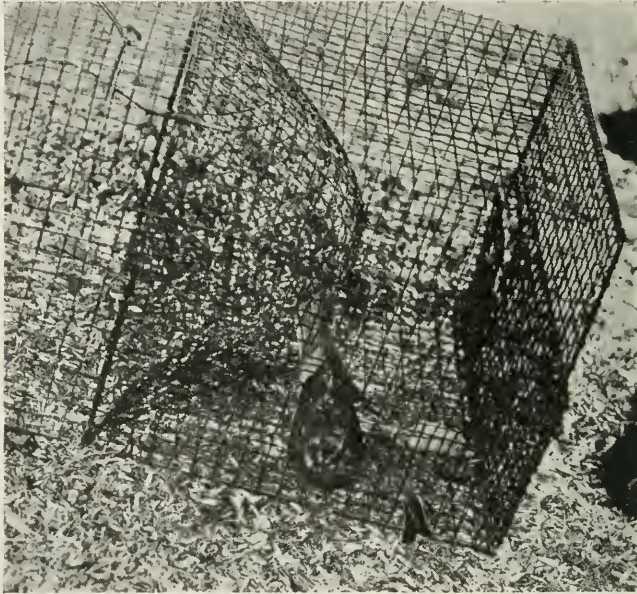
The list of the forbidden reads as follows: cats, weasels, rats, Crows, Cooper's and Sharp-shinned Hawks, Shrikes, Jays (when they start to break up nests), and red squirrels; also, the two alien enemies, English Sparrows and Starlings. Yes, the Starling, the bird of poets, a feature of the English downs, where they hover over the flocks of grazing sheep, whistling melodiously as they either follow them or alight upon the backs, deep in wool, to pick off the tormenting ticks. Our Biological Survey also maintains the Starling's excellence by stomach analysis, nevertheless, to the country lover and songbird protector, this bird is *oban*. For does he not devour the food of our native birds, especially in winter, but also fights with them in the nesting season and wrecks the nests and kills the young of species as large as the Robin? Does he not give a false alarm of spring, when we are awaiting the Redwing? an ethical crime in itself.

If the English Sparrow was a menace, the Starling is an accomplished cut-throat, and whatever he may be at home, or whatever his stomach contents may prove him to do from a hard and fast scientific viewpoint, in and about Birdcraft he is a Bolshevik. In one afternoon a flock stripped the berries

from two enormous pepperidge trees that would otherwise have yielded our native birds a month's rations.

Shooting, at wide range, was too risky, so the warden soon put in use a crude but effective trap—a large box with a hinged cover, held partly open by a stick to which a stout string was attached. This string ran in through the workshop window. The trap was baited with garbage and the Starlings did the rest.

The English Sparrows, with a longer criminal experience, were, of course, more wary. We bought an approved Sparrow trap, baited it, and waited. It was well that the Warden also *watched*, for an unwatched Sparrow trap can inflict much misery and destruction upon its inmates, as the tempting



NORTHERN SHRIKE AND TWO SPARROWS IT KILLED IN THE TRAP

seed-bait lures both the just and unjust. Among the birds caught the very first season were Song Sparrows, Juncos, Field Sparrows, White-throats *galore*, as well as Towhees, and even a Thrasher.

For a few minutes the trapped bird is unafraid and engaged in feeding, but as soon as there is a general fluttering among the inmates, the birds begin a dash for freedom, and unless the trap is visited, the detrimental birds removed and the rest set free, broken feathers and bleeding, battered heads result; and an all-night neglect of the trap, in even moderately cold weather, will show a pitiful array of little stark bodies next morning. At times such a trap is a necessity, but at best it is one of the greatest responsibilities of the Warden.

For this reason the use of the trap in the new general experiment of bird-banding should be very carefully considered. The banding of adult birds, if

carefully done by responsible people, and the traps often emptied, is in no wise detrimental. *We never band nestlings*; it is not our idea of perfect bird protection to in any way tamper with young birds. Our Warden has banded adult birds without causing them to become even disturbed. In one day he caught one Junco seventeen times and a Tree Sparrow seven times—the trap seeming to have a hypnotic effect upon them, for there was plenty of similar food outside. But this indicates a very careful watching of the trap, and here is another side, showing what could happen in an unwatched trap.

Shrikes were very plentiful in the Sanctuary last winter, eighteen having been shot by the Warden, in every instance taken in the act of harrying a song-bird. In March, the Warden being at work in his shop, saw the shadow of a Shrike dash by. Seizing the gun kept for the Sharp-shinned and Cooper's Hawks and going out, he saw the Shrike make a lunge at a Sparrow in the trap. Before he could reach it, the Shrike had entered the trap, killed a Junco and a Sparrow before he could be taken and would have doubtless made short work of the other eight imprisoned birds. Shrikes had harried birds all winter, chasing a Chickadee round about the bushes, in and out of the shelters, one coming into the Warden's hands by striking the fence wire, but the invasion of the trap seems the last word in daring.

The two bad Hawks, Sharp-shinned and Cooper's, always make a spring drive, and last year a baker's dozen of Sharp-shinned were taken. The Crows are perennial, but only to be disturbed in the season of eggs and squabs; a poisoned egg well secured in a dead tree is one remedy—a just sentence for egg-thieves—for whatever virtue the Crows may possess in the wide open spaces—and they have a certain picturesque beauty in the autumn and winter landscape—in the garden, or bird-refuge, the birds themselves will tell you, in no uncertain way, how they are feared.

More than once I have had a poor mangled Robin squab, fall, upon my head, from the beak of a startled Crow. When we attempt to coöperate with nature, and no less interfere with her processes, we assume a wide responsibility. A bird sanctuary is certainly coöperation, and as surely a responsibility, for even with the greatest care we sometimes seem to bend the axle of the great balance-wheel and something is upset.

Friends, do not undertake the making of bird-refuges unless you are prepared to do more than post a piece of land and scatter a little food, *once in a time!* Also do not put out Sparrow traps either for purposes of banding birds in general or catching English Sparrows *unless someone can watch them constantly, and someone who knows the species of Sparrows apart.* Better it is to let the alien Sparrows fight it out with their kin than that they should all die in a trap, for, at the worst, the Sparrow menace is lessening and the sturdy little brown gamin is following the horse toward the setting sun!

A Vireo as Hostess

By ERNEST HAROLD BAYNES, Meriden, New Hampshire

Photographs by the Author

Copyright by Ernest Harold Baynes

IF ONE makes a practice of extending hospitality to the birds, by giving them food and water and nesting-sites, and by protecting them from their enemies, it is easy to have hosts of acquaintances among the feathered folk.

For years it has been a very common thing for us to have birds of many species come to our window-sills to be fed and to have several species alight upon our hands and arms and even upon our hats and ears and lips. My wife and I have sat in the snow with a hundred birds swarming over us and the ground about us, some of them creeping inside our outer coats and into our loose pockets in search of the food we carried for them. They even permitted us to pick them up in our hands. But, after all, most of these we regarded more as delightful acquaintances rather than intimate friends.

Now and then, however, a bird will "take you into the family" so to speak. When this happens make the most of it. It will be a delightful, perhaps wonderful, experience, and probably you will never again have another exactly like it even if you live to be very old.

I had such an experience recently in my home village, Meriden, N. H. One day, near the middle of last June, a lady visiting the Bird Sanctuary, called my attention to the almost completed nest of a pair of Red-eyed Vireos in a small maple tree not far from the main foot-path. A few days later when I went to visit it I found it complete—the typical deep little basket made chiefly of strips of bark and grasses, suspended from a forked twig about five feet from the ground. Next day there was an egg in it, white, with black and reddish brown spots.

Two or three days later when I approached the nest the female was sitting on it, while her mate in a nearby maple grove continually called attention to his presence by short, precise, and quickly delivered sentences.

I knew that Vireos have the reputation of being willing to meet one half way in the matter of making friends, so I decided to make an advance. First I went to a dry and sandy spot where I turned over large stones until I found some ants' eggs. Then I selected a dead weed-stalk about five feet long and impaled an ant's egg on the sharp end of it. With this I very quietly approached the nest and held out my offering at arm's length, until the white morsel was within reach of the Vireo. At first she looked alarmed, then astonished, and a moment later rather bored, for she turned her head away and refused to look at the proffered food. But I waited patiently, holding the tip of the weed-stalk within easy reach. At last she turned her head as if the temptation to do so could no longer be resisted. She now showed keen interest in the proceedings, took a sharp look at the white delicacy at the end of the stalk and

then as much as to say, "Hello; that *is* an ant's egg, isn't it?" stretched out her neck and took it. For a moment she held it, rather doubtfully, it seemed, in the tip of her bill, but presently she swallowed it, and then settled herself very contentedly in the nest, with the air of one whose final decision had been fully justified. It was not necessary to be an ornithologist to understand that she thoroughly enjoyed that ant's egg, and she also had the appearance of one whose mind had been set at ease on a very important question.

A moment later she confirmed her own opinion by taking another ant's egg in the same way, after which I quietly withdrew, leaving her to digest both her food and her strange experience.

Next day I returned and after she had promptly accepted a few more ants' eggs from the end of the weed-stalk, I stepped up a little closer and offered



"HELLO! THAT IS AN ANT'S EGG, ISN'T IT?"

one between my thumb and forefinger. After a little hesitation she took it, and from that moment we were on friendship's footing. She seemed much interested, if not actually pleased, whenever I approached; she would sometimes stretch far out over the rim of the nest in order to make quick connections with the food I brought her, and did not mind in the least if I stroked her on the head or back with my finger. At first she was a little nervous when I stroked her throat, and when I persisted she slipped off the nest. But as she got used to me she minded less and less and would even allow me to lift her off her eggs and put her gently back.

In a day or two I felt sufficiently well acquainted with Madame Vireo to introduce my friends. Usually the introduction came as a surprise. I would

take a friend to the Sanctuary on one pretext or another, and when we were near enough to the Vireo home, I would point the bird out and make a formal introduction: "Madame Vireo, allow me to present my friend, Mr. Hunter." Whereupon Mr. Hunter would approach, and, after making an offering of an ant's egg or two, would almost literally shake hands with the lady. Many



ONE OF MY FRIENDS MEETING MADAME VIREO

people were introduced in this way, and children especially experienced ecstatic joy at the privilege of feeding and stroking a wild bird in her own home.

One warm afternoon when some of us were paying her a visit, the little Vireo slipped away for a few minutes, and, flying to a bird-bath not far away, took a bath and returned, looking much refreshed and with her plumage damp and somewhat disarranged. Very soon she flew to the nest and looked rather astonished, I thought, to find my hand covering the little home. But she was not in the least afraid, and, forcing her way between my slightly parted fingers, went onto her eggs in the dark.

Presently she went away again, and again I put my hand over the nest, this time with the fingers pressed firmly together. When she returned she flew boldly up to me, but, find-

ing that she could not get between my fingers, she hopped over the back of my hand, along my arm to the shoulder, and then flew to a nearby twig where she sat and scolded in a tone which left no doubt as to her opinion of me. Her mate, who had been busy preaching in a large maple tree, now joined her, and gave me to understand that he entirely agreed with her. Of course, I apologized and removed my hand and back she came and took up her domestic duties. No doubt it was pure imagination on my part but it seemed as if she looked at me with just a touch of self-satisfaction at having gained her point.

In order to photograph her I temporarily tied back the leaves which shaded

the nest, and as I sometimes used a mirror as well, the light at times must have been very dazzling. She would stand it a little while and then she would abruptly turn her back to the light and to the camera as much as to say "Now you may go ahead and do anything you like."

One hot day while I was photographing it was plain to see that she was feeling the heat very much and she sat with her bill parted as birds often do in warm weather. I sent a friend to a nearby bird-bath for water and offered her some in a spoon. She sipped it readily, and when she had had all she wanted she became very much interested in the shining spoon. She pecked at it, then turned it over and spilled the remaining water onto the ground, peering curiously over the edge of the nest as if to see where it fell. Then while I held the handle of the spoon, she took hold of the bowl of it with her bill, slid backward off the nest onto the branch which held it and deliberately played tug-of-war with me. Finally she became so excited that still holding onto her end of the spoon, she flew into the air and would doubtless have carried off the shining prize if she had been strong enough.

These pleasant experiences continued for several days, and I was looking forward eagerly to the time when Madame would introduce me to her babies. But, alas, one morning when we reached the nest we found it torn and deserted. Only one egg remained and next day this one too had disappeared. Probably it was the work of a Blue Jay or a Crow, a sad termination of a delightful friendship.



I OFFERED HER SOME WATER IN A SPOON

Koo

By FLORENCE MERRIAM BAILEY

KOO; for so the Roadrunner who came familiarly to our tent in southern Arizona named himself by the call with which he usually announced his presence.* He was so surprisingly tame that I asked our good neighbor, the ranchman's wife, if she had been the cause. He sometimes got into her garden, she said, and she would catch him and put him out over the fence. The first time he was terrified and tried to force his way out through the wire mesh, but the next time, having found that she did him no harm, when he saw her coming he ran into a corner of the fence, crouched down, and waited for her, letting her pick him up and submitting quietly while she stroked him.

He was often seen near the ranch watering-tanks and probably got water from dripping pipes. But what did he get to eat? His summer food, such as grasshoppers, crickets, scorpions, centipedes, lizards, and snakes were mostly housed in safe underground quarters for the winter. Mice were still to be had but most of these were nocturnal. He might easily miss a meal.

His first appearance in camp was at a truly psychological moment, for not only did our tent contain cages of numerous live rodents which were being studied by the Mammalogist, but a number of white-footed mice had been caught the night before and were waiting to be disposed of. So, holding up one of the delectable furry morsels for the alert, long-tailed visitor to see, the Mammalogist invited him to the feast. Being treated like a rational personage, Koo, on seeing the mouse coming through the air toward him, instead of running away, frankly accepted the invitation and started toward the mouse, actually walking up within a few yards of his benefactor for it. But with the prize once in his bill, discretion evidently seemed the better part of valor, for, turning tail, with body and tail held at the swiftest horizontal running level, Koo raced up the slope out of sight.

After that, all through January and February, and until it grew warm enough to bring out a goodly supply of lizards, Koo was a frequent and often daily visitor, some days staying around camp a great deal. He would always take small mammals thrown him with avidity, and when two live pocket mice were set free some distance up the trail to test his fleetness and hunting skill, he was off like a flash in pursuit, catching them before they could get to cover. But whatever savage hunting instincts he possessed to flatter us with our evolutionary superiority, his behavior in camp, and it would seem under great temptation, was most exemplary. To be sure, he did take especial note of one of our caged kangaroo rats when it was being photographed in a glass box out-of-doors, taking up his position on a stone close beside us and sitting fluffed up comfortably but betraying expectant interest by certain keen glances and

*As the plumage of the sexes is alike, the determination was arbitrary.

cranings of the neck. Our small diurnal mammals whose cages were taken out into the sunshine in the daytime were safe from him although he was caught regarding an antelope squirrel quite keenly one day in passing. Koo's predilection for scorpions and other 'varmints,' as they are expressively called, might well have made him a worthy camp watchman when those sleepers roused from their winter slumbers. The big hole in the ground in front of the tent which the University entomologist assured us was only that of a near-tarantula—the same size but gray instead of brown—gave point to Koo's possibilities of usefulness. Even a harmless near-tarantula may be an undesirable tentmate to other than an entomologist. And then there was that eight-inch centipede with needles pointing each claw and venomous forceps at its head, met with in the valley, now in the formaldehyde bottle on a shelf of the tent! Surely Koo would be a useful camp mascot when spring came!

But he kept his good deeds to himself until near our departure, when one day he was seen making excited sallies into a dense thicket a few yards from the tent, calling and snapping his bill, his wings and tail showing in frantic, hysterical action in the shadow. After a number of spirited attacks upon the hobgoblin, he appeared to give in and ran up the hill out of sight. The next day a Stephen's Vireo in the mesquite over the spot stopped singing and began to fuss. Then another came, and presently two male Hooded Orioles joined the excited, scolding group, all flying down to the lower branches scanning the ground. Had they discovered Koo's enemy? Focusing my glass on the ground, I discovered a streak of coral slipping over the leaves. At my call the Mammalogist came with his collecting pistol and in a mo-



COMING DOWN TO CAMP

ment more was holding up a beautiful five-foot coral-bellied racer. Koo was vindicated. His warning might as easily have been for the rattlesnake found later a few rods from camp.

But it was not his potential usefulness as a camp watchman or killer of 'varmints' but his ready friendliness and attractive ways which attached us to our rare camp visitor. If we were busy when he came he would call *koo, koo*, and then wait for us to discover him. Sometimes we would look hard before finding him and finally make him out standing on the mesquite slope above us, his feathers puffed out spreading the streaks on his chest till they and his light underparts toned in perfectly with the background of straw-colored ground and dry weed-stalks—completely camouflaging him. It was astonishing to see how such a large, marked bird could disappear in its background. And what a contrast that round, bird-like form made to the grotesque running figure we were familiar with—long neck, slender body, and long tail, one straight line.

When we had found him, most often standing quietly in camp waiting for us, while we were getting his food ready he would come up within a few yards of us and stand nervously raising and lowering his crest, and raising and lowering his tail as if to be ready for instant flight, an instinctive habit he partly lost when better acquainted with us.

When there were no spare mammals in camp to appease his appetite, he condescended to bits of raw beef or jack rabbit, although he greatly preferred his more natural food. Once when he was standing in the trail waiting for his purveyor to lower the meat-bag which, according to custom in arid, iceless Arizona was hung in a tree, Koo, whether from impatience or anticipation spent the time rattling his bill in the droll way he had and giving his call. When food was thrown to him from any distance, the keen-eyed hunter would watch it eagerly and follow unerringly where it fell, whether among the mesquite logs by the camp-fire or overhead among the branches of a tree.

When a stranger came to camp while Koo was there he flattened his crest and lowered his tail and scooted, racing away out of sight. But he knew us and our voices. When coming into camp one noon we discovered him disappearing up the trail, but when we called *koo-koo* in appealing tones, he turned and came back in sight rattling his bill. When we kept on calling and talking to him, he came walking prettily down the trail to camp making his way daintily between the piles of camp-fire brush till he was so near we could see his yellow eyes, when he picked up the rabbit kidney thrown him and ran up the hill with it.

When he was hungry and we were not outside, he would sometimes fly up to the crotch of the mesquite by the tent where we kept his mice, or even on the tent itself, when we could see his shadow on the canvas. The first time I saw him trying to help himself; it had been cold and he had not been fed for a day and a half, so I hurried out to him. At sight of me he gave his tail a quick

sideways toss which I interpreted as "Oh, there you are! Now I'll get something to eat."

While I was getting his lunch and talking to him he stood with a pleased and not-at-all nervous air looking up at me. Holding out his food I called coaxingly and he came nearer and nearer until I could see not only the handsome bluish black of his crest but the pink of the streak over his yellow eye. Quite different he seemed from the sandy-and-brown streaked bird so well camouflaged when standing on the mesquite slope. But the beautiful green sheen of his tail seen sometimes as he ran was not noticeable now. Such a decorative, cuckoo-like fan is not always kept tightly closed and may well play an important part, as has been suggested, in courtship display.

While Koo and I were regarding each other in friendly fashion, and I was coaxing him to come still nearer, with a pretty turn he lowered his head, puffed out his throat and emitted his strange guttural note. Was it a coy way of begging for favors in the manner of a trick dog, or was it just a sign of intimate friendliness? Be that as it may, as our bird became more and more at home with us, in choice, as it were confidential moments, he frequently went through with this same pretty play.

A familiar habitue of camp, if we were in the tent when he came he proceeded to look for us, often surprising us by peering in under a raised tent flap. He was photographed at such a time from inside when standing only six feet away, back to the sun, and feathers bristled up all over his body.

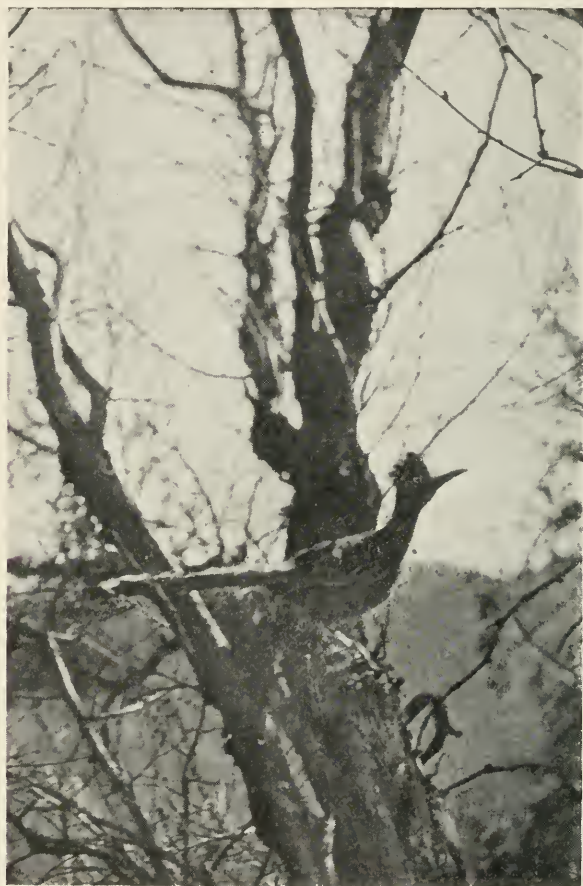
Koo was not usually an early visitor, but one morning when the tent door was opened he was found standing outside waiting for breakfast. As we had nothing especial for him at the moment, I went on with my morning's camp work, leaving the door open and paying no more attention to him. When something called me outside, to my surprise, out of the door ahead of me ran Koo! Had he taken the opportunity to examine the cages of small mammals? If so, he may well have found it an interesting interior.

Whenever, perhaps by reason of an awakening warm wave, Koo failed to come regularly for his meals, we thought anxiously of feathers of dead Road-runners found up the canyon and of shots heard from his route, for he had become such an accepted camp mascot that we missed him sadly. After one such unhappy interval I suddenly heard his voice and looked up to discover him standing quietly waiting as was his wont after announcing his arrival. I called out an eager welcome and the Mammalogist, equally glad to see him, hurriedly threw him a pocket mouse that had been waiting for him, such a big one that he had to gulp hard to even partly swallow it and had to leave the tail sticking out of the side of his bill for some minutes. In the afternoon he was back for more, however, as if his prolonged hunting expedition had left him hungry, this time coming within two feet, almost to the hand for a small kangaroo rat.

The first week in February Koo appeared on the trail above the tent with

a companion. He stayed to be talked to as usual but the stranger ran off. From that time on there seemed to be a difference. Koo was not getting sentimental, but spring was coming.

One morning when the Mammalogist was several rods from camp near what we took for a last year's Roadrunner nest, he heard a faint footfall on a leaf on a terrace below him and caught sight of Koo's crested head bobbing as he



KOO IN A HACKBERRY TREE

trotted along. Being called, Koo stopped, turned, and came right up the trail in the direction of the sound, and when he had skirted around the bushes until he was able to see his old friend, he began making a new and curious note—low, sibilant, and seething, suggestive of a courtship call. He kept this up when he had seated himself on a branch two or three feet above the ground, and humped up, with feathers loosely ruffled, facing the old nest, had all the intimate suggestion of being at home.

After that, Koo not only recognized his friend when met with in this neighborhood but when called, actually followed him like a little dog back down the trail to camp for food.

As the two birds stayed in the neighborhood for a few days, we hoped that we were going to have a nest under close observation, but then they both deserted the old nesting-ground.

About the first week in March it grew warm enough to rouse some of the lizards and we were away a great deal working in the lower country, so the comrades went farther afield for their hunting.

But again, about April 1, low *koos* were heard not far from camp and glimpses were caught of—was it Koo looking across the gulch at us? The low, familiar snapping of the bill was also heard and once a level streak was seen disappearing under the mesquite—Koo's mate?

After another long interval in which we vainly looked and called and called and looked for our mascot, his familiar notes were heard rather near camp. Soon after, one morning before the tent door was open, we heard what was recognized as the Roadrunners' spring love-song. It was given near enough the tent for us to catch its vibrant, emotional tones. It was the ordinary *koo* note sublimated, repeated rapidly and with fervor. From across the gulch came the answer, and we knew that Koo had left his strange human friends to answer the primordial call of his own race.



LARK SPARROW ON NEST

Photographed by Dr. A. H. Cordier Olathe Kans.

The A. M. S.* Robins

By O. C. WOOD, Denver, Colo

With Photographs by the Author

THIS story has to do with two pair of Robins that made their home close to the Agnes Memorial Sanitarium, where they were a delight to the patients. One pair built their nest in a small pine about fifty feet from my porch, and not over four feet from the ground. I had this nest under observation at all times. The other pair built their nest on the other side of the pavilion, on a box intended for House Finches, and which was tied to a porch column. The fact that beds were occupied on the porch throughout the day and people coming and going close at hand did not disturb the Robins during building operations or later.

The first nest, in due course of time, had three eggs and the second nest had four eggs. Fortunately, as it proved, I knew that incubation began at both nests within twelve hours of each other.

Had Mother Robin of four eggs not been so trustful of all human beings and gone farther afield to get her evening meal she might not have lost her life. But she ran afoul of a thoughtless, heartless creature with a gun and here ensued the first tragedy among our Robins. I knew of the killing in a short time after it occurred. Then the question came to me, Will Cock Robin assume the responsibilities of the household? I was convinced in a short time that he could not be depended upon. Whether or not he knew of his mate's death, he at least knew that she was absent from her post of duty, and was calling for her from various points of vantage.

I decided to try an experiment and took the nest and transferred all four eggs to the other nest in the pine tree with its original three eggs, taking care not to touch the eggs with my hands. Mother Robin flew a short way off while the eggs were being placed in the nest, but as soon as I walked away a short distance, she came back, cast a few inquiring glances at a more than doubled clutch of eggs, settled herself on them apparently contented.

Instead of her three prospective progeny, Mother Robin now faced the possibility of seven. And seven young Robins hatched in three days from the time the extra eggs were placed in the nest. Six of the eggs hatched within so many hours of each other, the seventh egg about twelve hours later, a circumstance which doubtless made this bird the weakling of the brood.

Now Cock Robin enters the scene and shares responsibilities. Heretofore he spent part of his time in the top of a tall tree, calling his cheery song to his mate on the nest and the world in general, and part of his time he spent picking up choice worms at his various meal-times. However, I did not see him take a worm to his mate at the nest; he allowed her to find them for herself.

*Agnes Memorial Sanitarium, Denver, Colo.

I do not believe there ever was a busier or apparently a prouder pair of Robins. They played no favorites; probably they were obliged to feed all seven fledglings to make sure their own blood relatives were fed. At least they did a good job, and those seven young Robins, with exception of the weak one, grew as only young Robins can.

It was soon evident that the nest would not long accommodate such a large family. I wanted to see them all live and thrive so I devised ways and means to relieve the congestion. At first, the extra nest was placed beside the overcrowded home and three young birds were put in this nest during the daytime but all were put in the one nest for the night. All were fed during the day as regularly as the young in the Robin's own nest, but the mother would brood only the young in her own nest.

By keeping accurate count one evening I observed that the Robins carried seven worms, giving the nest with four birds four worms and giving the nest with three birds three worms. This feeding period was well defined each day, and I am sure I counted all the worms carried. I was anxious to know if each bird received food in turn but was unable to determine that definitely. However I believe they did from the fact that seven worms



A FOOD-CALL

were carried and that the correct division was made between the two nests.

After two days I could no longer get the young all in one nest for the night. On the third night I kept three of them in my room and decided that the next day I would use the two nests to make one nest large enough to accommodate the entire family of Robins. While this enlarging operation was going on, the Mother and Cock Robin entered vigorous protest, but after placing all the young in the now one big nest, the Mother Robin flew down while I was close at hand, made some hasty examinations then flew off, called Cock Robin and they proceeded to feed the hungry fledglings.

I wish all bird-lovers might have been privileged to observe the growth of these fledglings and the care bestowed by the parents and foster parents of them. The young birds would take worms from my hands but when I first tried to feed them they appeared afraid and tried to get as near the bottom of the nest as possible. On one occasion I left some worms in a little soil in a box lid close by the nest. The old birds found the worms at once and made a meal on them, but never one of these worms did they give the young.

It was evident that the young would soon leave the nest for they had begun



A BUSY ROBIN

to raise up in the nest and flutter their wings. As this had been such an unusual experience with bird-life for me, I wanted some permanent record of it. The enclosed pictures are the result. I took them while the birds were being fed, standing not more than four feet from the nest and using the Kodak bulb.

With all the care exercised and the young almost grown, I was not privileged to see them fly, for on the evening of the same day the pictures were taken, a black shadow stole across the lawn, unseen in the dusk of evening, a commotion arose at the nest in which Mother Robin began a frightened calling, to be joined at once by Cock Robin. I knew a marauder was at work. Quickly as possible I was at the nest, but in the space of one minute the nest had been emptied and I found two live Robins on the ground, one the weakling, and three dead ones; the cat had taken

another young one for her evening tidbit. Later I saw to it that she paid the penalty.

For two nights I kept in my room the young birds that escaped the raider, and put them out in their nest in the morning. It was a pitiful call Mother Robin gave as she perched on the top of her pine tree home the morning after the cat raided her nest. She begun calling *where, where* as soon as it broke day.

The weakling of the brood had survived up to this time but now died, leaving but one fledgling out of seven hatched; the lone one to fly away.

The Mating Antics of the Pacific Nighthawk

By MABEL A. STANFORD

With Photographs by Wright M. Pierce

THE mating antics of the Pacific Nighthawk are unusual and interesting. This bird, which lives in British Columbia, Alberta, Washington, and many western states, migrates from Colorado to Nicaragua and is found in southern California from May to August. It has one or two unusual tricks to lure the intruder from its marbled eggs and fuzzy, camouflaged young.

The scientific name is interesting in relation to the bird's mating habits. Besides the name for Nighthawk, it contains the words which mean a stringed



YOUNG NIGHTHAWK NEARLY FLEDGED

Photographed by Wright M. Pierce, Claremont, Calif.

musical instrument and evening. The whole name is a large one for such a compact bird, with its long, slender wings and its brown, gray, and tawny coloring—*Chordeiles virginianus hesperis*. Popularly, the eastern Nighthawk, to which this species is closely related, is known as the 'Bullbat' because of its peculiar, booming, nasal utterance.

During the mating and nesting season, the Pacific Nighthawks, which forage in bands at twilight and early morning (even later in cloudy weather)

for injurious insect pests, fly high in the air, uttering their nasal *pée-ark* and executing a peculiar trick for certain members of the band. At the same time they utter a booming sound which attracts the attention of the others.

The sight of this curious acrobatic courting is more vivid than the usual twittering and cooing maneuvers of other birds. In the mountains of southern California, in July, 1921, an incident took place which illustrates this admirably. Just at twilight, eight birds flying together seemed to be sporting about in the air, continually uttering their nasal *pée-ark*. Suddenly one would fly



ADULT PACIFIC NIGHTHAWK ATTEMPTING TO ATTRACT ENEMY FROM HER NEST
Photographed by Wright M. Pierce, Claremont, Calif.

about and then drop with the speed of a rocket toward a lower bird, passing close to it and describing a circle below, giving a loud whiff or boom at the end of its dive.

When this cycle was completed it was repeated again and again, as if the bird were indefatigable in his endeavor to win the attention of the other.

The bird lays its equal ended eggs, with their marble tracery or unusual rings, upon the pepper-and-salt-like gravel of a hillside among the pines and oaks, usually on a few leaves. There she incubates upon them, a still figure indistinguishable, except at close range.

The birds sometimes employ all of the familiar tricks to lure the intruder away from the nesting-place. In one instance the pair detached themselves from the band when danger threatened, fluttering and even flying toward the intruder, uttering the boom note, until the location was passed.

The mother bird tries, of course, to get the enemy to move on or to deceive him. The broken-wing trick is a common one, and closely akin to this is the habit of fluttering and leading the intruder in the opposite direction from the nesting-place. These antics are accompanied not only by the squeaks that other birds use but also by piteous moanings and shrill cries and hisses. The variety of ways with which the bird can attract attention would often make it impossible to find the place where the eggs or birds are, even if they did not have perfect protective coloring.

In Big Bear Valley, Calif., July, 1921, the incident here illustrated took place. When the photographer, Wright M. Pierce, discovered a Pacific Nighthawk and its two half-grown young on the gravel, the bird flushed as soon as he came within six feet. It lit nearby, nearly flattened on the ground, wings outspread, uttering a shrill hiss. The maternal instinct militant made it come toward the enemy to attract attention from the young. It fluttered and continued hissing when he picked up one of the young and even came close, uttering another shrill note. When he released one of the young it ran toward the old bird and then, as the mother seemed satisfied that she had succeeded in deceiving, she flew across the cañon and did not return for fifteen minutes.



CEDAR WAXWING FEEDING YOUNG
Photographed by Joseph Pollak, Carman, N. Y.

Notes from Field and Study

A Plea for the Ruffed Grouse

In notes, April 17, issued by the Division of Ornithology, Department of Agriculture, Boston, Mass., there is an account of serious damage to apple trees by Grouse eating the fruit-buds during the past winter in Massachusetts and New Hampshire. Some trees in western Massachusetts were nearly stripped.

The same thing occurred on the Arrow Lakes, British Columbia, on certain fruit ranches. At Broadwater, on the Lower Arrow Lake, a bunch of eight Grouse were observed for a week in the apple trees. Suspicion being aroused that they were doing harm, six were shot, but the remaining two made good their escape and did not return. The crops of the six shot were stuffed full of fruit-spurs.

When in Victoria on a visit, I took the contents of one crop to the Provincial Museum, and was informed by the Director, Mr. F. Kermode, that he had never in his experience known Grouse to attack apple trees. On my return I made enquiries up and down the lakes and found that on certain ranches Grouse had done considerable damage, while on others the trees were untouched, though the latter were often surrounded by woods containing Grouse.

In Massachusetts the reason given for this departure from the usual feeding habits of Grouse, were, first, the lack of the usual wild fruits; second, increase in the number of Grouse.

On the Arrow Lakes we had an exceptionally dry summer, which no doubt affected the usual supply of wild fruit and buds on which the birds feed, but the second cause did apply here, for about 1915-16 a disease thinned out the Grouse to an alarming extent, and only this year have they attained to anything like their former numbers.

In discussing the question with 'old timers' they one and all agreed that Grouse, however plentiful, did no damage to fruit trees until

this season. Incidentally, I may remark that I have examined the crop and stomach contents of a goodly number of Ruffed Grouse when they were being prepared for the table, and found they contained wild fruits, buds, and often a quantity of grasshoppers, especially a dark-colored prickly species, which makes a clicking noise in flight, is common here in summer, and goes by the local name of 'locust.'

It is to be hoped that ranchers and others will not wage indiscriminate war on Grouse in and out of season from the one experience of last winter. Not until it can be proved that Grouse have altered their habits, and will continue to do damage, need they be destroyed, and then only those individual Grouse actually invading fruit ranches.

When any damage done to fruit, and the like can be traced to birds, people are only too inclined to wage war against the species implicated, oblivious to the fact that it may be only certain individuals that are doing harm, or that the birds have been forced to alter their habits owing to climatic conditions, and that given normal seasons the same species does good that far outweighs the harm done under abnormal circumstances.—J. E. H. KELSO, M. D., *Edgewood, Arrow Lakes, B. C.*

Birds near Chicago

Trees, feeding-shelves, and drinking-fountains around my cabin in the Dunes attract bird visitors all the year. Occasionally there is one that is rare. For the last three weeks a female Cardinal Grosbeak has been visiting my food-shelves. This week (January 8), a flock of six Bohemian Waxwings were in my tallest perching-tree. They sat there for a long time, preening their feathers and chattering sociably. I was able to get close to them with my glasses and get a fine view with a good light on them. They were larger than the Cedar Waxwing and had the well-defined white marks on wings. Mr.

Burroughs says in "Under the Maples" that a visit from this northern bird indicates a severe winter. However, we had a northern visitor in the Dunes all last winter—the Three-toed Arctic Woodpecker—beginning as early as October 30, when I first saw him, and our winter was unusually mild.

All summer I had a Prairie Warbler and a Black and White Warbler singing in my perching-trees. They evidently nested near, judging from the activities of both the males and females in gathering food.

I mention them because they are not common summer residents in this section. There were plenty of the more common birds, from the House Wren, nesting in a bird-house, to the Great Horned Owl, perching in the very top of the tallest tree.

A Bewick's Wren made us a call in passing, and sang beautifully near our door.—
LILLIAN CRAMP, *Chicago, Ills.*

Evening Grosbeaks in Illinois

My neighbor's garden runs down toward a small creek. Along this creek are low willows, small box elders, and other small bushes. I visited this place every day, if possible, to watch the migration of birds.

On October 15, 1921, I went down about 7 o'clock and discovered the place to be full of birds. I saw the Purple Finches, that I had discovered there the week before, and Myrtle Warblers, both Ruby- and Golden-crowned Kinglets, a Brown Creeper, a White-breasted Nuthatch, a young Rose-breasted Grosbeak, a Song Sparrow, a flock of White-throated Sparrows, some Juncos, a pair of Chickadees, and a few Fox Sparrows.

I was just about to leave the place when I saw in the tops of the trees across the creek, some birds with black and yellow and white markings. Their call was similar to that of the Robin. At first, they were too far away to get distinct markings, but after a little while, they flew directly in front of me and began feeding on weed seeds and in the box elders. They proved to be Evening Grosbeaks. There were about a dozen in the flock, some of them females or young. I watched them feeding until a shower drove me away, but about noon the sun came out

again, and I found the Grosbeaks up in the garden, feeding in the raspberry bushes and on some elder berries along the fence. They did not seem to take any notice of me and I watched them until they flew away across the creek.

I looked for them every day after that, but did not see them again until October 24. They were here then for just one day, and there were about the same number in the flock.

I have kept a record of spring and fall migration of birds for several years and never before have I seen the Evening Grosbeaks, nor did I expect to see them in this locality.—
ADA LILLY, *Durand, Ills.*

A Coöperative Chickadee Nest

In the winter of 1918, a Downy Woodpecker started to drill a hole in a post in our back yard. It was just started when he left. In the spring, I noticed a pair of Chickadees pecking at the same hole. They worked for days but made little progress. Finally my mother suggested that I try to help them. I took a chisel and hammer and chipped away the hard central part of the post. Around this the wood was soft and crumbly. My work had made the opening rather large. I was afraid the English Sparrows would take possession so I took a square of heavy dark paper, cut a small hole in it and tacked it over the hole in the post. I watched from the window. The Chickadees tried but could not get in, so I enlarged the hole. They immediately entered and commenced their excavating again. They raised a brood of eight, and this summer they raised a brood of the same number. We feed the birds every winter but it seemed an even greater privilege to help them make their nest.—
F. BOYLES, *Kent, Ohio.*

A Prank of the Downy

Of all the birds that visit my feeding-station, I believe the Downy Woodpecker is one of the most interesting. He seems to be one of the first to become acquainted and when once acquainted does not forget you from season to season.

I was very much amused at one of his pranks, in fact, so much so, that I wish others to share it with me. One day as I was sitting at my window sewing the 'little man' came and gently tapped on the pane as much as to say, "There is no food on my shelf." As I was busy I did not heed his tapping and he soon disappeared. Later I thought I heard someone gently tapping at the door and arose to admit them. When I reached the door I saw my visitor, the Downy, flying away, leaving for his card a tiny hole pecked in the door. I now thought that he had been faithful enough to be rewarded with a hearty meal, so I proceeded to place food on the shelf and saw to it that he never begged so hard again.—JOSEPHINE HART WOOLSTON, *Canandaigua, N. Y.*

A Snow-Bath

In BIRD-LORE for May-June, 1921, page 125, the writer states, in reference to the snow-bath that the Downy Woodpecker and Shorelark are the only birds that participate in that kind of bath.

I saw two Juncos last winter on a branch of a Tulip tree, taking what I considered a snow-bath, after a rather severe snow-storm, in which the snow remained on the trees several hours after it ceased falling. They flipped the snow all over themselves for some time. I would like to know if this is an unusual case.—(Miss) I. M. NORTON, *Washington, D. C.*

A Trip to Gull Island

A short time ago two friends and myself decided to take a trip to Gull Island. We had heard of a bird island, somewhere near Detroit, but for a long time none of our informants knew just where this bird island was. The Government map showed no such island and the Government officials seemed to know of none. But we were undaunted and after repeated investigations we learned that Gull Island was simply a popular name for a low-lying island of sand about thirty miles from Detroit at the upper end of Lake St. Clair, an island about a half mile long and perhaps 100 yards wide, its longer axis

parallel to the Government canal at that point. Gull Island, or Sand Island, or Jefferson Butler Island, after a former president of the Audubon Society of Michigan, is now a state bird preserve located in one of the most favorable places possible. However, it is not a Gull Island but a Tern Island, for the Common Terns have taken possession and reign in peace. Here, in the midst of the Great Lake region, a region of lakes and shallows and marshes, conditions have been most favorable for aquatic birds. Although this island lies in the line of summer travel, it receives very few visits, I believe, because there is little to attract anyone save a nature-lover.

We chose June for our trip because at that time the birds would be nesting, and we wished to take photographs under as favorable conditions as possible. We left Detroit on the 'Tashmoo' at 9 o'clock, and after a delightful trip up the Detroit River and across Lake St. Clair, we disembarked at Star Island. Here we persuaded a loiterer with a launch to take us down to our island, a mile below, with the stipulation that he was to return for us at 5 P. M., in ample time for the afternoon boat. After an uneventful trip past summer cottages and hotels, we came in sight of our goal. In order to land it was necessary to remove shoes and stockings and wade, as we could not get near the island.

With us, of course, we carried our impedimenta: lunch, cameras, opera-glasses, bird-books, etc. The island is at no point more than eight feet above the river or lake, and is covered by a sparse vegetation of which a few low willows were the only tree-like forms. As we proceeded along the central axis of the island the Terns became more and more excited and vociferous, an indication that the nests were becoming more and more numerous. Indeed, the nests were on all sides now and it was only by using great caution that we avoided crushing the eggs and nests. However, we were very careful and enjoyed our new experience whether the birds did or not. How the birds flew at us, but always lacked the courage to touch us! Nevertheless we involuntarily ducked our heads. Undoubtedly, each bird took a turn at us as we

threatened each nest and all worked together, with a stupendous scream of anger and fear. We wished for a movie camera in order to show others what we saw.

Some of the nests were fully formed, in the grass; others near the grass were more rudimentary; others displayed very little grassy material; while still other eggs were absolutely nestless save for a depression in the sand.

They were frequently as close as three feet apart and held one, two or three eggs, light green or olive-brown, heavily blotched with blackish spots. There seemed to be every possible variety of coloring and blotching. We visited every part of the island and found nests nearly everywhere, although the majority of them were grouped in or near the center of the island on the higher ground. I should estimate the number of nests at 1,500.

Egg-shells were common enough, and two or three dead birds were seen, but we saw only two young birds. This was due to the fact that it was rather early in the season and also to the fact that the young are able to hide or run to water soon after hatching. The two young ones were beautiful, downy brown chicks, looking exactly like bantam chicks with webbed feet, showing no resemblance to the Tern that was to be.

We found at the lower end of the island about 200 Herring Gulls, either sterile or sick, as this Gull does not ordinarily remain in this vicinity in the summer time. Permanent residents, aside from the Terns, seemed to be very scarce, due no doubt to the activity and noise of the Terns. Song Sparrows, Sandpipers and Red-winged Black-birds were seen. A nest of the latter testified to their residence.

It was a day of intense interest to us as amateurs. Perhaps it would have been to those of larger knowledge. At 5 P. M. our boatman came for us and we soon caught the 'Tashmoo' back to Detroit.—G. E. VAN LOON, *Highland Park, Mich.*

A Night Flight in Iowa

The May-June issue of *BIRD-LORE*, which just arrived yesterday, contained a letter

from Ames, Iowa, by Mrs. F. L. Battell which related an account of a flight of birds the night of February 26, 1922, and this aroused my curiosity enough so that I referred to my field-notes for that date and I copy from them the following: "Temperature 30° to 40°. Weather cloudy. Very light snow this evening. Between 9 and 10 P.M. I listened to many bird-notes, evidently by birds in migration but could not distinguish what they were. All were alike. Some fog this evening and weather barely freezing." This no doubt was the same flight of birds that was observed by Mrs. Battell, as it was at exactly the same hour.

Ames is nearly thirty miles directly east of Ogden. Could it be possible that the flock of birds was thirty miles wide traveling northward? In addition to the above notes, I recall very distinctly this particular evening, as my wife and I had been spending Sunday evening with a friend, and when we were returning home I heard them very plainly, and when we arrived home I remained out-of-doors for at least fifteen minutes standing out in the fog and mist trying to make out some of the calls but was unable to do so. There seemed to be hundreds of them. It would be interesting to hear from other Iowa observers about this flight. What can you make out of it?—W. M. ROSEN, *Ogden, Iowa.*

A Window Exhibit

The window of a book-seller's shop, in Englewood, N. J., displayed during late November and early December, 1921, a bird tableau of unique quality.

One-half of the large space was strewn with autumn leaves, from which arose belated goldenrod stalks (in pots). A stalwart tree-trunk towered at one side. Bittersweet vines clambered over a cottage window at the back of the 'scene,' and under the window glowed a brilliant sumach bush.

For what actors was this stage set?

A Nuthatch clung to the wires of a suet-holder attached to the tree; a Blue-Jay lorded it over a drinking-dish among the autumn leaves; beneath the cosy cottage window, Juncos and Chickadees were pecking seeds from a feeding-shelf; and a Downy

Woodpecker enjoyed his luncheon at an open cafeteria counter a little distance apart.

The seeking mind, aroused by this novel presentment, turned to the other half of the window to receive the explanation very obviously offered there. Three large Audubon charts showed the birds whose company we may attract and retain throughout the bleakest winter, if the enticements set forth in the scenic part of the window are persistently employed. Samples of different

other food devices were shown at a popular field club of Englewood, together with a corn stalk shelter erected on the club grounds.

All this was done by the Protection Committee of the Englewood Bird Club and the results should recommend their plan to other bird associations. A significant factor in the success of the exhibit was the timing of a lecture by Prof. Arthur Allen of Cornell University on "Bird Protection and Winter Feeding" so that it occurred during the



WINDOW EXHIBIT OF THE ENGLEWOOD BIRD CLUB

sorts of bird-foods, with, presumably, their calories, proteids, carbo-hydrates, and vitamins, were displayed with a printed list of menu prices, and places where the supplies might be obtained. The most popular books on birds were there, and for sale within the store. There resulted, also, a lively sale of feeding-trays and shelters, suet-holders and bird calendars; and a neighboring seed store had a run on its stock to the amount of a hundred pounds.

At this same time a feeding-table and

fortnight of the illustrative window, to which the cards inviting to the lecture called attention.—SARAH J. DAY, *Englewood, N. J.*

Birds of an Acre

Our yard and flower-garden cover just an acre of land. There are several large trees, including linden, maple, larch, and Norway spruce. The flower-garden, largely shrub-filled, is surrounded on two sides with old apple trees, and the walk is bordered with

large old pear trees. During the ten years that I have studied birds, from 1911 to 1921, I have seen 101 species of birds, either on the acre or flying over it, and have known twenty species to nest on it. The following is a list of them:

Common Tern (overhead), Herring Gull (overhead), Canada Goose (overhead), Black-crowned Night Heron (overhead), Woodcock, Bob-White, Mourning Dove, Sharp-shinned Hawk, Cooper's Hawk, Osprey (overhead), Screech Owl (nested), Yellow-billed Cuckoo, Black-billed Cuckoo, Belted Kingfisher (overhead), Hairy Woodpecker, Downy Woodpecker, Yellow-bellied Sapsucker, Flicker (nested), Whip-poor-will, Nighthawk, Chimney Swift, Ruby-throated Hummingbird (nested), Kingbird (nested), Crested Flycatcher (nested), Phoebe, Wood Pewee, Least Flycatcher, Blue Jay, Crow, Starling (nested), Cowbird, Red-winged Blackbird, Meadowlark, Orchard Oriole (nested), Baltimore Oriole (nested), Rusty Blackbird, Purple Grackle (nested), Purple Finch, White-winged (?) Crossbill (bird flew, recognized by note), Goldfinch, Pine Finch, English Sparrow (nested), Vesper Sparrow, White-crowned Sparrow, White-throated Sparrow, Tree Sparrow, Chipping Sparrow (nested), Junco, Song Sparrow (nested), Swamp Sparrow, Fox Sparrow, Towhee, Rose-breasted Grosbeak, Scarlet Tanager, Barn Swallow, Tree Swallow (overhead), Cedar Waxwing (nested), Migrant Shrike, Red-eyed Vireo (nested), Warbling Vireo, Blue-headed Vireo, White-eyed Vireo, Black-and-White Warbler, Blue-winged Warbler, Nashville Warbler, Tennessee Warbler, Parula Warbler, Cape May Warbler, Yellow Warbler (nested), Black-throated Blue Warbler, Myrtle Warbler, Magnolia Warbler, Chestnut-sided Warbler, Bay-breasted Warbler, Blackburnian Warbler, Blackpoll Warbler, Black-throated Green Warbler, Palm Warbler, Yellow Palm Warbler, Prairie Warbler, Ovenbird, Northern Water-thrush, Maryland Yellowthroat, Wilson's Warbler, Canadian Warbler, Redstart, C a t b i r d (nested), Brown Thrasher (nested), House Wren (nested—only known nesting record in township), Winter Wren, Brown Creeper, White-breasted Nuthatch, Red-breasted Nut-

hatch, Black-capped Chickadee, Golden-crowned Kinglet, Ruby-crowned Kinglet, Wilson's Thrush, Olive-backed Thrush, Hermit Thrush, Robin (nested), Bluebird (nested).

The following birds have taken food provided for them at our back door or on window-sill and arbor.

Downy Woodpecker, Starling, English Sparrow, White-throated Sparrow, Tree Sparrow, Chipping Sparrow, Junco, Song Sparrow, Catbird, White-breasted Nuthatch, Chickadee.—MABEL R. WIGGINS, *East Marion, L. I., N. Y.*

The Birds of an Elm

Twenty-five feet from our south windows there grows an elm which is rather large and tall. So many birds come to our trees, and particularly to this elm, that in June, 1920, I decided to make a list of all the birds I should see in the tree in a year, beginning June 5, just after the spring migration. On our lawn are two other elms and two maples, but more birds seem to come to the south elm than to the other trees, and I hoped to list fifty kinds within the year.

Our home is on the edge of a small village which is noted for its large numbers of trees. A very small stream, which is often dry in the summer, runs through the village. Very likely the trees and the stream are in a large measure responsible for the fact that many birds may be seen here. We have quite a good many resident, summer, and migratory birds, and a few that come from the North to spend the winter here.

Beginning June 5, I saw the following named birds in the elm in June: Red-headed Woodpecker, Yellow-billed Cuckoo, Robin, English Sparrow, House Wren, Kingbird, Bluebird, Bronzed Grackle, Goldfinch, Orchard Oriole, Warbling Vireo, Mourning Dove, Brown Thrasher, and Chipping Sparrow. This makes fourteen on my list for the first month.

The Dove nested in the tree, that year, and I saw a Warbling Vireo feeding her young on a limb of the tree, but did not find her nest. Robins nest in the tree every year.

In July my list showed only four addi-

tions, the Flicker, Bewick's Wren, Blue Jay, and Carolina Chickadee.

August added only three to the list: Downy Woodpecker, Catbird and Hummingbird.

September brought eleven new birds to the list, nearly all of them being migrants: Red-eyed Vireo, Red-winged Blackbird, Philadelphia Vireo, Black and White Warbler, Chestnut-sided Warbler, Black-billed Cuckoo, Pine Warbler, Black-throated Green Warbler, Screech Owl, Ruby-crowned Kinglet, and Tennessee Warbler.

The Philadelphia Vireo is the only one I have ever seen. The Black-billed Cuckoo was the first one I had seen, but since then I have seen another one in the same tree.

In October, thirteen were added to the list: Yellow-bellied Sapsucker, Blue-headed Vireo, Brown Creeper, Nashville Warbler, Hermit Thrush, White-throated Sparrow, Cowbird, Blackpoll Warbler, Orange-crowned Warbler, Bay-breasted Warbler, Myrtle Warbler, Cardinal and Phoebe.

The Cardinal is very common here, and almost every year one nests in our doorway.

Only three new birds were seen in the elm in November: a Junco, a Hairy Woodpecker, and a Song Sparrow. Thus, at the end of six months my list numbered forty-eight.

In December, the only new bird I saw in the tree was a Tree Sparrow. They come here for the winter in quite large numbers.

No new visitors to the Elm were noted until April, when a Meadowlark came to the tree. They are very abundant in the spring and summer, and some stay here all winter. We often hear their song in the winter.

May brought nine birds to be listed, nearly all being migrants, as follows: Palm Warbler, Yellow Warbler, Baltimore Oriole, Gray-cheeked Thrush, Magnolia Warbler, Least Flycatcher, Redstart, Canada Warbler, and Wilson's Warbler.

Early in June the list was completed by adding the Crested Flycatcher, which totaled just sixty seen in the elm for the year.

This list shows that birds are much more abundant about our homes than is generally believed, and that we have opportunity to

learn much about them without going out of our own dooryards.

In the last two years with the aid of my good six-power glass, I have listed 118 birds within the limits of our village corporation.—
MARY S. ANDREWS, *Farina, Ills.*

Goshawk Nesting in Massachusetts

I am glad to announce the breeding of the Goshawk in Massachusetts, a consummation devoutly wished, for, lo, these many years, by Bay State ornithologists. The Goshawk nested last spring in Petersham, in Worcester County, in the central part of the state. The two downy young in the nest, which was in a large white pine, were taken May 22, 1922, by Mr. J. Nelson Spaeth of the Harvard Forest School, assisted by two of the students of the school. One of the young died after a while, but the other bird lived to become practically full-grown and to assume the complete juvenal plumage. I saw this young Goshawk, July 1 to 4, in good health and spirits apparently, during a short sojourn at the Harvard Forest School where I enjoyed the delightful courtesy of Prof. R. T. Fisher, director of the Harvard Forest in Petersham, and of his assistant, Mr. J. Nelson Spaeth. To these gentlemen I am indebted for the foregoing facts. A little later the young Goshawk died and the carcass was forwarded by Professor Fisher to State Ornithologist Forbush at the State House, and made into a skin.

The breeding of the Goshawk in Massachusetts has long been anticipated, particularly since an immature bird of the species was reported August 15, 1900, in the Hoosac range, in Berkshire County, by that keen observer, Mr. Gerald Thayer (*Auk*, Vol. XIX, 1902, p. 296.) In addition, individuals of the species have been reported in the past on other occasions in summer in Massachusetts.

While this is the first record *with date* of the nesting of the Goshawk in Massachusetts, it is antedated by a hitherto unpublished record of a nesting a dozen or more years ago in Townsend in Middlesex County, where in a small local collection a mounted adult female Goshawk and two badly blown eggs

taken from her nest in Townsend were seen by Mr. M. Abbott Frazar, the well-known taxidermist of Boston. Mr. Frazar, to whom I am indebted for this record, tells me that he sent one of these eggs by mail to Mr. William Brewster, but that it was broken in

transit. Mr. Brewster kept the fragments of the egg but never published the record. Mr. Frazar cannot now recall the date of the taking of the eggs of the Townsend bird.—J. A. FARLEY, *Boston, Mass.*

THE SEASON

Edited by J. T. NICHOLS

XXXIII. June 15 to August 15, 1922

BOSTON REGION.—The passing summer has been cool in the main, and the precipitation has been far above normal, the rain falling in almost daily deluging showers. The plentiful supply of water has caused a luxuriance of vegetation; the lawns and trees are beautifully green and the roadsides are banked with rank growth, many species of plants (e.g. wild lettuce, *L. spicata*) having attained phenomenal height. The excess of rain was unfavorable to many birds; nestlings in exposed nests were either drowned by the rain or killed by violent hail-storms; adults, also, of certain species suffered, the Chimney Swift, for example, because their feeding habits render them especially liable to starvation during prolonged stormy weather on account of the beating down from the air of all their insect food. Other birds of similar but clearly not identical feeding habits were not noticeably affected, e.g., Barn Swallows and Kingbirds are at the present time even more numerous than usual.

Nesting activities appeared to be completed early this year, hastened, perhaps, by the mortality of well-grown nestlings of single-brooded birds. The notes of nocturnal migrants were heard soon after the middle of July, very early for this region, and some species of migrating shore-birds arrived in numbers at dates not long after the earliest records of their appearance here. Lawrence B. Fletcher furnishes an interesting list of birds seen on or near the seacoast at Ipswich, Mass., on July 29, including Common Tern, Dowitcher, both species of Yellowlegs, Spotted, Least, Semipalmated and Pectoral Sandpipers, Semipalmated Plover, Marsh Hawk, and Long-eared Owl.

The most prominent departure from normal in the distribution of local breeding birds is the marked increase in the number of Hermit Thrushes in the country to the westward of Boston. Three years ago the increase was noticeable and was reported in these pages, but since then this Thrush has continued to increase, till now it is a regular and not uncommon summer resident here. Arthur J. Parker reports the bird as 'numerous' in Lincoln, Mass.

E. W. Forbush, in his 'Items of Interest,' XVII, August 16, mentions both species of Crossbills in northern Maine and New Hampshire and gives the advice, "Look out for Crossbills; especially where spruces grow."

The New England Bird-Banding Association, formed last winter, with headquarters in Boston, has made rapid advance in growth and has accomplished definite results in trapping, banding, and re-trapping birds. Many problems can be solved by this fascinating method of bird-study only after long and patient experimentation, but certain facts have already been proved since the recent discovery by S. Prentiss Baldwin of the value of the trap in banding birds. Lawrence B. Fletcher, treasurer of the Association, reports the record of a Chipping Sparrow who entered his trap nine times in ten days, three times on the same day, a record which illustrated that trapping is a method of *taming birds*. Similarly, a male Red-winged Blackbird, trapped and banded on August 5, returned the following day accompanied by an adult female and four young, all of which entered the trap and were banded. I am indebted also to Mr. Fletcher for the history of an immature Black-crowned

Night Heron, one of 102 Herons banded by him and Messrs. Floyd and MacKaye on June 17, at West Barnstable, Mass. The bird was found dead on August 7, lying under electric wires at Kennebunkport, Maine. The young bird had moved northward in midsummer over 100 miles.—WINSOR M. TYLER, *Lexington, Mass.*

NEW YORK REGION.—At Mastic, L. I., on June 24, two Yellowlegs were observed flying together. One, from its notes, was definitely a Lesser Yellowlegs; the identity of the other was uncertain. On June 25, a Greater Yellowlegs was sighted on the same bit of marsh, and, although flushed several times, did not leave. In notes and actions it seemed like a late spring bird which had been living there. On July 1, there was a Lesser Yellowlegs (and there were also about ten south-bound Least Sandpipers) on this marsh, and on July 2, a Greater Yellowlegs flying over it.

The Lesser Yellowlegs on June 24 may be considered an early south-bound bird, June 27 being the previous earliest south-bound date for Long Island; June 1, the latest north-bound. The Greater Yellowlegs on June 25, however, was probably north-bound. Had there been a Greater Yellowlegs established here July 1, the presumption would be that it was the same bird, which had summered over the critical few days between the known north-bound and south-bound migration periods of the species. None was found, and the bird of July 2 may as well have been or have not been the individual of June 25. In this connection, see observations on the Greater Yellowlegs in 1921, reported by Charles A. Urner in the July (1922) *Auk* (p. 413). Stray individuals of the species occur rather frequently on Long Island with the south-bound wave of shore-birds the first week in July. One seen by E. P. Bicknell at Long Beach, June 28, 1917, seems referable to either migration with equal appropriateness.

As regards south-bound movement of land-birds, Tree Swallows began to increase early in July and are now to be found in goodly numbers along the shore and marshes. The presence of the Yellow Warbler on July 29, in scant bushes bordering a coastwise bay

separated by a stretch of marsh from any considerable cover, is taken as evidence that the species was moving. August 6, E. P. Bicknell noticed several species of transient Warblers at Hewlett, L. I., and L. Griscom also detected such migrants in Central Park at about the same date. Two instances have been personally observed of Oven-birds striking against the screens or windows of a house. One, which had probably met its end in that manner, was picked up dead, and one seen to fly against a piazza screen and drop panting to the ground beneath, flew off in the opposite direction when approached.

Reports of southern Herons which have come in so far (August 15) are confined to a juvenal Little Blue Heron at Greenwood Lake, July 27 to 31 (R. F. Haulenbeek), and several of the same species as well as American Egrets on the Newark Marshes (Miller and Urner).

At Demarest, N. J., B. S. Bowdish secured two Song Sparrow 'returns' of interest in connection with the study of that bird's movements by means of banding. One of these individuals (No. 50024) which had been banded April 26, 1921, was retaken July 9, 1922, and another (No. 50045), banded July 13, 1921, retaken July 16, 1922, significantly close to the date of its original capture.—J. T. NICHOLS, *New York, N. Y.*

PHILADELPHIA REGION.—With the idea of looking into the present status of some of the Tern and Black Skimmer colonies of the New Jersey coast, investigations were carried on during the 'Season' just past on a number of the more thinly populated beaches.

Four colonies of Common Terns, containing perhaps 75, 100, 50, and 100 birds; three colonies of Skimmers of approximately 14, 20, and 60 birds; one colony of Least Terns of 30 birds were looked into; also, probably some 20 pairs of Piping Plover were found. One downy young of the last species was discovered on Seven-Mile Beach July 30.

One of the smaller Skimmer colonies was deserted by the birds before any young were hatched, probably because of frequent visits by summer cottagers, although a colony of Common Terns nesting in the same locality stayed and succeeded in raising a few young.

Three trips were taken to the island on which the Least Terns, one colony of Common Terns, and the colony of 20 Skimmers were nesting, and while the following brief account may by no means be accurate, it will give some idea of the vicissitudes, dangers, and misfortunes of these colonial birds.

June 25. Common Terns, about 100; about 30 nests with eggs; about 10 downy young; a number of eggs laying around in the sand as if washed out of the nests by high tides. Black Skimmers, 14; 2 nests, one with 5 eggs. A pile of some 30 eggs (mostly Skimmers') laying on the sand as if gathered by someone who wished to see how many could be found. Least Terns, 30; 9 nests with 2 eggs each; 3 downy young, one with pin-feathers starting on wings.

July 16 (second trip). Common Terns, 75; 2 nests with eggs; a number of downy and some well-feathered young found stretched prone on the sand and hiding in the sparse grass, also a few young birds on the wing, the young birds being distinguished from the parents by their quicker wing-beats and labored flight; numbers of eggs scattered about. Black Skimmers, 14; 3 nests, one with 3 young just hatched. Tracks of a horse, dog, and man in the sand. It looks as if these birds were persistently robbed. Least Terns, 30; no nests with eggs found, 1 downy young, probably there are more as these little fellows are just the color of dry sand and hard to see; the parent birds all flying about very anxious.

August 18 (third trip). Common Terns 40; no nests with eggs; 2 young with pin-feathers starting; most of the birds appear to have finished breeding and have scattered. Black Skimmers, 20; 6 of these birds are young, in gray plumage, 5 are flying about, the other one was found by Jack Crosby, lying prone on the sand. The bird is well feathered but unable to fly; if put on the sand he immediately squats; finally he is induced to move off, which he does rather hurriedly. The lower mandible of this bird protrudes about an eighth of an inch beyond the upper. Adult Skimmer found dead, floating on surface of Inlet, apparently shot. Least Terns, 10; no young are found, though old birds are seen flying about with food in their bills,

also show considerable alarm; most of the birds have apparently left.

While all the colonies suffer more or less from eggers, floods, etc., there seems to be no immediate danger of their being exterminated though one cannot predict with any degree of accuracy in view of the rapid growth of the resorts on the New Jersey coast. A sanctuary which would include a strip of beach, it would seem, would be the proper thing.

Sanderling, 2 Knots, and a Semipalmated Plover were still present on Seven-Mile Beach, N. J., June 18. At this time, also, an Oyster-catcher was observed. This bird was probably a straggler and not nesting, as he manifested no apprehension such as nesting Oyster-catchers at Cobbs Island, Va., had been observed to do when breeding. A very good view of the bird was obtained, but, true to his wild nature, he did not permit of very close approach. As he took wing, the striking wing pattern was plainly seen. C. K. Roland was present and also observed the bird. He also is familiar with the species, having seen it on the Virginia coast islands. Three Turnstones and several Least Sandpipers were noted on the meadows near Atlantic City, N. J., June 25.

The migration of south-bound shore-birds was in full swing July 16. Dowitcher, 150 (4 flocks); Black-breasted Plover, 60 (2 flocks); Willet, 2 (Western?); together with a fair number of the commoner species were all noted on the salt marshes near Atlantic City. Here also Black Terns (7 adults) were observed June 25 and July 16. A large flight of Least Sandpipers, perhaps a thousand birds, and a few Pectoral Sandpipers are at present writing (August 14) frequenting a filled-in, muddy meadow near the outskirts of Camden.—JULIAN K. POTTER, *Camden, N. J.*

WASHINGTON REGION.—Ornithological conditions in the vicinity of Washington, D. C., were about normal during the months of June and July, 1922. The weather was for the most part moderate and thus favored the usual avian activities. In general, birds were rather numerous, possibly more abundant than usual at this time of the year

Some species, like the smaller Flycatchers, were, however, less frequently seen than in recent years; others, like the Whip-poor-will, appeared to be more common.

In view of the fact that all the transient visitors and all winter residents had passed northward by June 1 of this year, there is little of interest concerning such movements to chronicle in the present report.

The Pied-billed Grebe, which is common in fall, sometimes also in spring, but which, so far as we know, has not previously, except once (June 10, 1919), remained later than the middle of May, continued here this year until June 21. A flock of eight was observed by F. P. Callaghan along the Potomac River, near Washington, regularly from early June to the above date. From this we may indulge the hope that the species may at some future time breed in the Washington region.

Two individuals of the Double-crested Cormorant, which is a rare straggler in the vicinity of Washington, were seen by Miss M. J. Pellew along the Potomac River, near Marshall Hall, some fourteen miles below Washington, on May 31 of the present year. It is interesting to note that this Cormorant has been certainly reported from this region in only five previous years—1859, 1884, 1896, 1917, and 1921—although there sometimes has been more than one record in a year.

The European Starling, which has been rapidly increasing in numbers since its appearance here a number of years ago, has now become a common bird in most of the region about Washington, both in winter and summer. Young birds this year have been conspicuous in many places during July.

The Nighthawk, which commonly belies its name of 'Nighthawk' by being abroad mostly in the daytime, occasionally flies also by night, but this is not so regular an occurrence that it entirely ceases to be a matter worthy of comment. During the early part of June, Nighthawks were frequently heard calling on the wing after dark in the outskirts of the northern part of Washington. On June 6 they were heard at 8.30 P.M., on June 7 at 9.40 P.M., on June 9 at 10.45 P.M., and on June 11 at 1.45 A.M. They were thus abroad at practically all hours of the night, though it will be noted that on all

these nights there was bright moonlight, as the moon was full on the 9th of the month.—HARRY C. OBERHOLSER, *Biological Survey, Washington, D. C.*

OBERLIN (OHIO) REGION.—The weather during the summer has been very different from that of the two preceding years. There have been frequent showers and wet and cool weather with but a few really hot days as compared with 1920 and 1921. However, August up to date (15th) has been dryer and warmer. The birds have been fairly numerous and seemed to have been more in prominence. The weather seemed to invigorate them to greater activity.

The Red-headed Woodpeckers have been more common than usual this summer as they likewise were last spring. Bob-whites could be heard whistling on all sides of you. They are by no means abundant, but their numbers have steadily increased the last few years. However, in winter, when they are gathered in flocks and are silent, they seem, of course, less numerous, and as one has almost to step on them to flush them, they even at times seem almost uncommon.

The Turkey Vulture is a prominent bird in this region during the summer months. At places along the Vermillion River where farmers leave their dead animals lying in the fields, they are especially numerous. In such localities at least a few birds can be seen every day, while flocks of 15 to 30 are a common sight and once in a while the flock numbers over 40. Such a gathering circling around in the air at one time certainly makes a startling scene.

The Bobolinks had all ceased singing and left the fields and meadows to gather in flocks the second week in July. The Baltimore Orioles, after a silence of about three weeks, were heard singing again the last week of the month. The song however, was unequal to their rich full melodies of May.

The nesting of all the birds, so far as known, has been satisfactory. One record especially is interesting, that of a pair of Pied-billed Grebes which was seen with a young one on June 30 in the marshes near Vermillion. They were seen a number of times later during the summer in the same

place. It is a very unusual occurrence to find them nesting in this region.

Although there has as yet been no distinct indication of any migration besides the usual flocking together, that of two Black Ducks seen on August 3 is rather suspicious. As there were no signs of their nesting, and as they were not found at any time previous during the summer months, they must have been mere wanderers from another realm, their nesting region perhaps which lies farther north. It is a month at least too early for them to be in migration.—S. CHARLES KENDEIGH, *President of Cardinal Ornithological Club, Chicago, Ills.*

MINNEAPOLIS (MINNESOTA) REGION.—The last half of June was marked by changeable weather alternating from cool, pleasant days to very hot ones, an unusual maximum of 99.1° being reached on the afternoon of the 22d.

July was reported by the local United States weather observer as "the coolest July in seven years and the driest in six years." The average temperature was 70° compared with 77.4° last year, and a normal average of 72.2°. The total precipitation was only 1.76 inches, compared with 3.16 inches last year and a general normal of 2.05 inches. The month closed with one or two very hot days—91° on the 30th. The hot spell thus begun continued with only a brief intermission (from the 4th to the 8th) until the middle of August. Midday temperatures of over 80° prevailed, reaching 92° on the 3d. Several severe electric storms, accompanied by heavy rain and hail, occurred.

There has been this year an unusually abundant crop of fruits of almost all kinds, both cultivated and wild, due perhaps to the cool weather of July. Vegetation has grown rank and tall and flowering plants have blossomed profusely.

June 15. A brood of young Tree Swallows just leaving the nest.

June 16. While watching a Song Sparrow's nest in which one of the two eggs that it contained was just hatching, a common garter snake, 30 inches long, suddenly appeared, seized and made off with the young bird in spite of a vigorous attack by one of the

parents. When pursued the snake quickly swallowed the tiny nestling. On being killed and dissected a second young Song Sparrow was found in the stomach, presumably another of the same family which accounted for the smallness of the brood. The snake had a hole under a large stump close by, toward which it was retreating when overtaken and killed. The nest with the remaining egg was deserted. Another large snake of the same species killed close by contained the feet and wing feathers of what was apparently a well-grown nestling Blackbird, the rest of the bird having been fully digested. Both of these snakes were females and contained from twenty-six to twenty-eight small young inclosed in the egg-sacs. The garter snake is very abundant hereabouts and it seems probable that it takes during the nesting season a heavy toll from ground and low-nesting birds.

July 1. White Water-lilies coming into bloom.

July 11. Many young Clay-colored and Field Sparrows of first brood are on the wing. The Field Sparrow has always been uncommon or entirely absent in the immediate vicinity of Minneapolis but only 15 miles northeast in a sandy, oak-open country in Ramsey County it occurs regularly in considerable numbers. It is an abundant bird in southeastern Minnesota as far north as Lake City. North of this it is unevenly distributed as far as Isanti and Sherburne counties. Records farther north probably refer to the Clay-colored Sparrow.

Nestling Vesper Sparrows of the second brood two-thirds grown.

The sandy hillsides are thickly covered with dense masses of the Jersey tea, the fluffy white carpet variegated with innumerable golden blossoms of the coreopsis (*C. palmata*).

July 18. A Cedar Waxwing's nest with young just hatched. A Clay-colored Sparrow's nest with young one-half grown.

July 23. A family of Crested Flycatchers flying about among the trees, the young being fed by the parents. The first Black Tern showing traces of molt about the head.

July 25. A brood of nestling Kingbirds about one-half grown. The Cedar Waxwings

mentioned above were feeding their young white berries—the only *white* berries to be had at present are those of the poison ivy.

Culver's root, bergamot and early sun-flowers in full bloom. Goldenrod and blazing star just coming into bloom.

July 27. A Field Sparrow's nest with young about three-fourths grown. A Clay-colored Sparrow's nest with two fresh eggs.

July 29. First young Black Terns on the wing (Kilgore).

July 31. Young Cedar Waxwings left nest today. It is curious to see the young of this bird, almost as soon as they are able to stand, strike the prolonged 'freezing' attitude of the adults.

August 4. A Song Sparrow's nest containing four fresh eggs. Of all the Song Sparrows' nests seen this year none has been on the ground. All have been from 6 to 18 inches up in small bushes or shrubs.

An old Loon and her two young, almost full grown, seen together in a small lake where they have been since spring. Many young Black Terns now a-wing.

While watching the nest of a Goldfinch at close range from a photographing tent the following notes were made:

The five young birds were about three-fourths grown.

Both male and female fed the young at intervals of about half an hour.

The young were fed a white sticky paste or 'pap' which was regurgitated from the gullet in small amounts and given to all the nestlings in rotation several times around at each visit. There was no sign of food in the bill of the parent when it came to the nest. It seemed probable that this 'pap' consisted of the white meat of seeds mashed up after the removal of the hulls. No other food was brought during the several hours that the nest was watched.

On at least one occasion the female was seen to take the excrement from all the five nestlings and swallow it beside cleaning up the inside of the nest in the same way.

The young birds at this age ejected excrement to some extent over the rim of the nest where it was apt to lodge and render the outside of the nest soiled and untidy.

Once the male bird alighted on top of the

tent and spent some time peeping curiously down through the ventilating aperture as though bent on finding out what was going on inside. It seemed to us as though he was after this much more wary about approaching the nest, which was something less than 3 feet from the movie camera. He had apparently seen too much.

August 8. A Barn Swallow's nest containing four eggs. A Maryland Yellowthroat still singing its '*wiltchite*' song. Blue-winged Teal Ducks in flocks of twenty or more at the Long Meadow sloughs.

Ironweed and golden aster in full bloom.

August 14. The eggs in the Song Sparrow's nest mentioned on the 4th beginning to hatch today. A Mourning Dove's nest containing two eggs (Huff).—THOS. S. ROBERTS, M. D., Zoölogical Museum, University of Minnesota, Minneapolis, Minn.

CHICAGO REGION.—The weather has been fair and warm during the past two months, the temperature ranging between 65° and 80°, with very little rain. The rainfall during June was the lowest for fifty-two years, only .14 of an inch being registered, and the rain of July 11 ended a forty-three day drought.

The presence and early appearance of numbers of shore-birds is the notable feature of the recent period. On June 17 and 18 the writer found a Black-bellied Plover and two Red-backed Sandpipers at Beach, Ill. Three Turnstones and a Long-billed Curlew flew by and lit a short ways up the beach where they were watched for a short time at close range. The Curlew was very wary, soon flying north, and on following four miles up the beach it could not be found, although the Turnstones were seen twice. It is probable that all these were non-breeding birds spending the summer here. Five pairs of Piping Plover were seen along as many miles of lake shore and were, without doubt, nesting there. Spotted Sandpipers were plentiful and a nest with four eggs was found.

Hyde Lake, near south Chicago, has been the locality where the waders have been the most abundant. Wilson's Snipe, Dowitcher, Pectoral, Least, Semipalmated and Solitary Sandpipers, Yellowlegs, and Semipalmated

Plover were found there on the following dates; July 2 (B. T. Gault and C. J. Hunt), July 22 (G. P. Lewis), July 23 (B. T. Gault and C. J. Hunt), July 28 (Lewis, Sanborn and Conover), and August 6 (Sanborn and Conover). The Dowitcher and Semipalmated Plover were first seen July 22. Least and Semipalmated Sandpipers and Plovers were in the greatest numbers, with Yellowlegs and Pectorals next and a few Dowitchers and Jack Snipes, the latter birds probably young raised near there.

With the exception of the Dowitcher and Snipe, all these birds have also been reported from the Lincoln Park beach on July 18 and 22 by G. P. Lewis and July 22 and August 8, by B. T. Gault. Mr. Lewis added Upland Plover to the list on the 22d and Mr. Gault added Red-backed Sandpiper the 22d and Sanderling August 8. On the 22d Mr. Gault had a very close view of two Marbled Godwits, a rare record from this region. Bonaparte's Gulls and Common Terns were also there August 8.

Messrs. Gault and Hunt found a few Yellow-headed Blackbirds at Hyde Lake, July 2, and a King Rail's nest with nine eggs. The writer found the Blue-gray Gnatcatchers at Beach again this year on June 18 and July 16, but had no time to look for the nest. E. J. Scupham saw a Turkey Buzzard, August 6, on the Kankakee River. It was after a heavy rain and the bird was perched on the top of a dead stub drying its wings and plumage. The small flock of Scaup stayed in the harbor off Chicago until July 30, when the hydroplanes, motorboats, yachts, and dredges evidently became too much for them. No Warblers have been reported as yet.—COLIN CAMPBELL SANBORN, *Chairman Report Committee, Chicago Ornithological Society, Chicago, Ills.*

KANSAS CITY REGION.—A numerous colony of Traill's Flycatchers nested again this year in the extensive willow thickets in the Missouri River bottoms near the mouth of Big Blue. Scores of nests were watched during the last two weeks of June and the early days of July. The full complement of eggs in the nests of this colony varies about equally between three and four, only a single

set of five being seen. It was found that this species does not lay an egg every day, but that several days usually elapse between the laying of successive eggs. Yellow Warblers were also numerous in the willows, and those individuals of the two species that chose their nesting-sites deep within the thickets were not imposed on by Cowbirds, while nests located in more open situations usually contained eggs of the parasite. In the older parts of this region, where there are large areas of broken and dead willow stubs of from three to six inches in diameter, the House Wrens are particularly numerous nesting in old Downy Woodpecker holes and natural cavities. It was noticed last year for the first time, and verified this season, that every nest of the Wren in this wild region contained fragments or whole cast snake-skins. This material was worked into the lining, as the outer nest was of the usual coarse construction.

A visit was paid late in June to the Holt County, Missouri, farm of Charles E. Dankers for the purpose of examining recent acquisitions to his collection of birds and Missouri records, and to see again his large flocks of wild Geese. It was found that his Blue Geese had been breeding during the past two seasons, and the writer was presented with a fine set of these rare eggs. Mr. Dankers has established several unique bird records for western Missouri, as well as two or three for the entire state, which have been recorded elsewhere. A recent record of interest was the finding of a nest of young Marsh Hawks near his home on June 4.

A pair of Upland Plover, presumably the same that have nested for several years in the Waldo region, were present this year in the large pasture on Oak, between 71st and 75th streets. They were not found until late in June and had evidently succeeded in bringing off their young, as they were very solicitous of something in the high grass that could not be found.

Records of the Blue Grosbeak have accumulated to such an extent that it is puzzling to know whether the species has extended its range into this region lately as has been supposed, or that the bird has been

merely overlooked which is hard to believe. At all events the recorded local status of this species will need to be entirely revised.

A deluge of rain, accompanied by a gale of wind, early in July, did some damage to young birds, and a severe squall near the end of the month added something to the mortality, but in the main the season has been favorable to bird-life and there is much evidence of an enormous crop of young of all the common species. Late in July the Robin and Dove-roost in the grove of old pines on the Country Club golf-course was visited and found to be in use by even more birds than last year. The Robins especially are in greater numbers and are flying in from all points of the compass, whereas last year they were noted coming from the east or northeast. The usual large flocks of returning Grackles testify each evening to the continuance of the Rockhill roost of this troublesome species.

The writer does not remember ever having seen all kinds of wild fruit in such abundance as this year. Wild cherries are actually hanging to the ground, and dogwood trees are loaded with berries. Other berries beloved of birds, such as poison ivy, bittersweet, sumac, wild grape, together with all the ornamental shrubs and market fruits, are in the greatest profusion, and it will be interesting to note what effect, if any, this will have on migration.

Full-grown young Mockingbirds were seen on July 31. This is one of the off years for this bird, as only two pairs have been found in a territory where a dozen or more have been located in other years.

A few troops of Blue-winged Teal have lately been seen on the river near the city, and stragglers have been met with on ponds nearby, indicating that the usual few broods have been raised in the region. The pair referred to in the last letter as beginning a nest within throwing distance of a boulevard had to abandon their site to the small boy. Other possible sites are rapidly being improved and cultivated until there is little hope of ever seeing the increasing water-owl stop here to nest. It is different, however, with the Bob-white. This bird has found conditions so favorable within the

southern boundaries of the city and adjacent territory that it has about reached the limit of its abundance. It has become so tame in certain localities as to stalk about in full view of passing traffic and to perch about on fences and street signs. The past several seasons have been favorable to its rapid increase, and what with being entirely let alone except by its natural enemies it has increased by leaps and bounds.

Thomas Hayes Whitney writes of the singing of the Veery at Atlantic, Iowa, during the spring migration. Mr. Whitney has a summer home in the north woods and knows the bird well. It is rare indeed that this bird is heard in song while in transit through this region.

A. Sidney Hyde had unusual good fortune with migrating Warblers in the Topeka region, and reported such local rarities as the Bay-breasted and Canada Warblers and the Woodcock.

Ralph J. Donahue reports seeing an Egret at close range on a lake in the vicinity of his home at Bonner Springs, Kans., on July 30.—HARRY HARRIS, *Kansas City, Mo.*

DENVER REGION.—Many readers of BIRD-LORE are familiar with the belief held by ornithologists that some western birds raise the first brood in the spring on the plains, and the second or later broods higher up in the adjacent mountains. I believe that this is correct with at least two or three species common about Denver. This belief, however, has not been susceptible of proof up to date, but that it will be settled after a while cannot be doubted, for the establishment in the near future of banding stations on the plains and in the mountains will furnish positive data for or against the hypothesis. A recent motor trip across the Continental Divide focused anew my attention on this question. When leaving Denver early one morning, no Pine Siskins were noted in the city nor in its surrounding country, yet, immediately on getting well into the mountains (not lower than 7,000 feet) they became common and seemed to be nesting.

This motor trip exhibited in a striking and most enjoyable manner how well an auto lends itself to making a *vertical* cross-section

of the birds of a mountain region. Leaving Denver (altitude 5,200 feet) in the morning, one gradually climbs to higher and higher levels, and, without undue haste, in four hours can be at timber-line on Berthoud Pass, for example. Timber-line at Berthoud Pass is at 11,500 feet altitude. On the way up to this level one will see several species which visit Denver and the plains only in the fall, winter and early spring, such as Gambel's Sparrow, Gray-headed Junco, Long-crested Jay, Townsend's Solitaire, Audubon's Warbler, Piñon Jay, Rocky Mountain Jay, and Clark's Nutcracker, and if one is not in a hurry, many more can be seen, each at its appropriate level. When one drops onto the lower levels of the Pacific watershed, at Grand Lake, perhaps, other forms become abundant, especially the beautiful Violet-green Swallow. All of the above listed species were seen on this particular motor trip, together with others not specifically mentioned. At and above timber-line, those hardy pioneers, the Titlark and the Gray-headed Rosy Finch were seen, these two species being very noticeable on Flat Top at an altitude of 12,000 feet. It was a matter of something more than ordinary interest to watch a Marsh Hawk plying his trade at this altitude, sweeping over the rocks, and about the little lakelets on and near the Divide with as much elan as over the plains or over a New Jersey marsh.

This season has reimpressed me with the impossibility of divining the reasons why the complexion of a local bird-life should change so much from year to year.

Now that the young are able to fly, it becomes very apparent that a large number of Wood Pewees were successful in nesting this year in and about Denver. One sees an unusual number of them these days, and the second or third brood of Robins must also have been large, the residential parts of the city almost swarming with them. Yet there have been no Warbling Vireos to speak of, very few Black-headed Grosbeaks, and fewer Chipping Sparrows.

The summer so far has *seemed* warmer than ordinary because of a somewhat greater humidity, a combination which may have a relation to the scarcity of some local birds.

One can count with great trust on seeing flocks of Bronzed Grackles appearing or reappearing in Denver and its environs about the middle of August. This year the first came under my notice on August 6; on the morning of August 14, Upland Plover were heard calling as they flew over my home, and on August 6 and 7, the first Rocky Mountain Hairy Woodpeckers reappeared in the city. These two last species are very apt to be seen in or over the city any time after August 1.

Several years ago quite a few Bob-white flourished along the Platte River immediately above and below its course through Denver. They have been decidedly scarcer during the past four years. It was a welcome sound to hear again the calls of this species in the neighborhood of Loveland on August 5, and I hope that it means that the species will get a fresh start. A native species which has almost deserted Denver, the Barn Swallow, was detected nesting in a barn on the eastern edge of the city. This effort at nesting, and those of Bluebirds, and Mockingbirds, prompts one to hope that more will succeed in the future, and also makes one realize with sorrow what a great change the English Sparrow has wrought in the bird-life of this city. Even now, despite the obnoxious Sparrow, if given a bit of encouragement and help these species, and Wrens and others are occasionally successful in nesting within the city proper. For the past few days there have been no Yellow Warblers about my neighborhood. As this is being written (August 15) they are again singing freely in Cheesman Park. I believe these two facts mean that our local Yellow Warblers departed for the South about a week ago, and that those here today are migrants either from the mountains or from the North.—W. H. BERGTOLD, *Denver, Colo.*

PORTLAND (OREGON) REGION.—Nothing particularly startling was noticeable in the months of June and July in this district. The small birds have been nesting in normal numbers and at about the usual dates. Yellow Warblers seem to be even more common than usual and the Green-backed Goldfinches have been particularly noticeable.

None of the handbooks or lists record the Green-backed Goldfinch from Oregon, although, as a matter of fact, it is one of the commonest birds throughout the western part of the state. It is very abundant about Portland, and in the vicinity of my own home on the east side outnumbers the common Willow Goldfinch.

During the month of June, Stanley G. Jewett was on the Malheur Lake Reservation and reports that there is a considerable increase in numbers among the Egrets, Ibis, and Western Willets. He also reported that Ducks, particularly Cinnamon Teal and Gadwall, were present in numbers. He found that the Ravens were destroying enormous numbers of nests and eggs, which is, however, a usual thing about these big bird colonies in the desert countries. He also found the Sandhill Cranes to be less numerous than usual.

Bob-whites, which have been introduced into this country, seem to have had a good year and are more abundant than they have been at any time in the past four years. The Robin has become so numerous as to be a pest to the berry-growers of the Portland district and causes considerable loss to the earlier berries, but later, when berries become more abundant, the loss is not so noticeable.

On July 20, while on the beach of Lincoln County, a large shore-bird migration was noticed. This consisted principally of Western Sandpipers and Hudsonian Curlews. One flock of 17 Sanderlings was noted and a single Long-billed Curlew. A small flock of Dowitchers and 5 Greater Yellow-legs were seen on the mudflats at Newport. The usual sea-birds were noted along the coast, California Murres and Tufted Puffins being particularly common. At the jetty in Newport, large numbers of Cassin Auklets and Marbled Murrelets were feeding in the harbor entrance. I also noted a considerable number of White-winged and Surf Scoters and three or four American Scoters which evidently had spent the summer off this coast. One dead American Scoter was picked up on the beach and 15 to 20 California Murres with oil-soaked plumage were found dead, or dying, during the day.—IRA N. GABRIELSON (OF U. S. BIOLOGICAL SURVEY), *Portland, Ore.*

SAN FRANCISCO REGION.—The whole of the period covered has been free from hot weather and has contained very few cold, foggy days. Bird-life has seemed exceptionally abundant in the East Bay region. A half-hour walk through Strawberry Canyon on June 16 revealed the presence of many pairs of Black-headed Grosbeaks, Song Sparrows, San Francisco and California Towhees, Pileolated Warblers, Vigors Wrens, Bush-tits, Wren-tits, and Russet-backed Thrushes. There were two Tolmie Warblers singing, but no Vireos, either Hutton or Warbling. On the lower campus, Warbling Vireos were present but in reduced numbers, and Russet-backed Thrushes had not yet regained the normal population. Coast Jays, Robins, Juncos, and Pine Siskins were noticeably on the increase, but Lazuli Buntings were hard to find (Dr. Miller). One of the usual nesting areas of the Rufous-crowned Sparrow was burned over last year, with the result that none of that species has been observed since. On other bushy hillsides they are present as in former years. The usual niches were occupied by Olive-sided Flycatchers, but few Wood Pewees were reported except from the Contra Costa side of the hills. Mr. and Mrs. Kibbe found the Bell Sparrow as formerly in its island of artemisia and fern on a south sloping hillside.

By June 18, young Quail were trailing through a Berkeley garden. House Wrens left their box on June 19, and Western Flycatchers tried their wings for the first time on June 21. A second brood were raised in the same nest and were almost ready to fly on August 5. Full-grown young Thrashers were accepting food from the parents on June 29, and young Blue Jays began to pick up food provided on July 3. Yellow Warblers were singing still on August 10, and a Robin on the topmost spray of a deodar saluted the setting sun with its usual melody on August 13.

Shore-birds are reported by Mrs. Kelly to have been very scarce during June. None were seen on June 26, but on July 7 Curlews began to come in and by August 4, 30 were counted on the mud-flats near Lincoln Park. Six Godwits and 4 Willets were also seen on July 7, but the numbers have not increased

as yet. Four Semipalmated Plover were first seen on July 8 and they have increased steadily since that date, as have also the Western and Least Sandpipers. Dowitchers are still very scarce, 1 having been seen on July 22 and 2 on July 23. Forster Terns were seen first on August 4.

A week spent in the mountains August 5-12, at an elevation of 6,000 feet, showed few signs of migration or flocking. Most species were in family groups, feeding together where food was most abundant. Robins had deserted the mountain meadows and were feeding on berries which were fast ripening on the open bushy mountain-sides. On the same slopes were Western Tanagers, Cassin Purple Finches, and Western Evening Grosbeaks, which flew back and forth from the shrubs to the bordering forest trees, while underneath the bushes Green-tailed Towhees and Fox Sparrows kept to their usual haunts. In the dense forest growth Slender-billed and Red-breasted Nuthatches, Golden-crowned Kinglets, Mountain Chickadees, and Audubon Warblers gleaned their insect food, and a White-headed Woodpecker searched every cranny of a moss-grown stump; Wood Pewees caught the low-flying insects, while the Olive-sided Flycatchers darted out from the dead tops of the highest trees. In the alders along the river bank were Calaveras and Pileolated Warblers and in the brush that grew on rocky divides were Rock Wrens and Wright Flycatchers. Higher still in the Juniper belt were Clarke Nutcrackers in family groups. Two birds ordinarily common at this altitude during the nesting season seemed to have departed: the Mountain White-crowned Sparrow and the Ruby-crowned Kinglet, and only one Nighthawk was seen. As we came down through the foothills on August 12, families of Horned Larks perched on the wire fences, and Meadowlarks and Brewer Blackbirds were seen. As we approached the upper bay large numbers of Barn Swallows and Cliff Swallows were assembled—the only flocks observed during the week.—AMELIA S. ALLEN, *Berkeley, Calif.*

LOS ANGELES REGION.—An item of interest that reached me too late for last report,

records the appearance of a small flock of Cedar Waxwings at the bird-bath of a Whittier member as late as June 4.

June 14, one to two weeks earlier than in former years, occurred our annual observation of birds, with reference to nesting in a canyon of the Sierra Madres. The day's list was made up of fourteen resident birds and twenty summer visitants. Bird-songs, nests, the gathering of nesting materials, food-carrying, all proclaimed that this favored place held its average quota of breeding birds, but in only one instance was a family of young birds found—Pileolated Warblers apparently just out of the nest. The anxious behavior of a pair of Lutescent Warblers nearby seemed to point to a possible nest in the locality. Nesting of this species in this locality is rare. Western Tanagers were numerous and in song. Black-chinned and Costa Hummingbirds were noted, and one pair of Lawrence Goldfinches was seen.

June 22. Mrs. F. T. Bicknell reports a pair of Bald Eagles nesting on a cliff at Catalina Island. The Allen Hummingbird was also seen there. On this date a small number of Western Martins appeared at Echo Park, and have frequently been seen since that time. On August 1 and 2, they fed young that were perching on the wires. August 6, there were eighteen, most of which were young. August 8 and 9, all disappeared.

July 9, Upper San Antonio Canyon. Comparison of list of this date with that of May 14, the walk being taken at the same hours and over the same course, afforded striking contrasts. Pine Siskins, Cassin Finches, and all the Warblers had disappeared. There was little song, other than that of the Black-headed Grosbeak and the Warbling Vireo. Blue-fronted Jays, Wood Pewees, Thurber's Junco, and the Western Tanager were feeding young. Violet-green Swallows, an Arkansas Kingbird, Ash-throated Flycatchers, and a Western Gnatcatcher were added to the lists. The Swallows were evidently at home in the dead spruces of a high forested slope, and came down to hawk over the chaparral of the Upper Sonoran area, where the last-named birds were also seen. A Water Ouzel passed up the stream.

July 23. Western Blue Grosbeaks were again seen in the Balboa region, two individuals being in typical plumage and one brown with only the head blue. A Virginia Rail was seen in the salt marsh. On July 26, a pair of Blue Grosbeaks was seen at Artesia, where Kingbirds were numerous, Cassin's being noted as well as many Arkansas. About one thousand Cliff Swallows were congregated near a ranch reservoir. July 29, another assemblage of Cliff Swallows was noted numbering several hundreds. On this date Barn Swallows were still feeding young at the nests under a bridge at Playa del Rey.

Mid-July had arrived before any trips to the shore were undertaken. July 16, the migration of shore-birds seemed to be well under way, Hudsonian Curlew being fairly numerous, and several small flocks of Sandpipers and Semipalmated Plover noted, as well as 4 Willets. Fifteen White-winged Scoters were on the ocean at Playa del Rey, at least 5 being males. They had very probably remained through the summer. Fifteen Least Terns and a few Snowy Plover were noted. July 23, brought a few Marbled Godwits and many more Curlews. July 26, 1 young Heerman's Gull was noted. July 29, at Playa del Rey, the writer saw 1 Long-billed Dowitcher come into the lagoon in company with 12 Curlew, apparently after a long flight. It was in summer plumage of brighter, deeper tones than those seen in the spring. Six Willets were noted. The 15 White-winged Scoters were again seen.

August 6, 2 Roadrunners were seen on the

Annandale golf-links. A repetition of the now familiar walk in the mountains yielded but meager returns, the total list comprising the Water Ouzel, Canyon Wren, 5 or 6 Quail (Mountain), 1 young Thurber's Junco, Warbling and Cassin's Vireos, the latter feeding young, Wood Pewee, and many Blue-fronted Jays.

August 6 and 7, a strange bird visited the feeding-station of our Pasadena members, the Miss Wilsons, affording opportunity for careful observation. Its markings were found to correspond to the description of the Juvenal plumage of the Desert Sparrow (*Amphispiza bilineata deserticola*). There is one record of the occurrence of this Sparrow near Pasadena.

August 10. A walk from Sunset Beach to Bolsa Chica disclosed the presence of a small colony of Least Terns with young half grown. Snowy Plover were numerous in the same locality. Willets were present all the way in extraordinary numbers. Hudsonian Curlew and Marbled Godwits were abundant, small Sandpipers much more numerous than on previous trips. In the lagoon at Bolsa Chica were five or more Black-necked Stilts, and a Kingfisher hovered above the water, harried by Barn Swallows. Two young Black Terns dropped onto a bar where Gulls and some waders were resting, rising very soon to course over the marshes in characteristic manner. Western Gulls were common.

August 10. Poor Will's heard in Griffith Park. Other earlier reports have reached us of their presence there.—FRANCES B. SCHNEIDER, *Los Angeles, Calif.*

Book News and Reviews

The Ornithological Magazines

THE *AUK*.—In Memoriam: William Palmer,' by Richmond, with photographic portrait frontispiece, opens the July number of the *Auk*. Palmer was for forty-seven years connected with the United States National Museum as field collector and taxidermist. Meanwhile he contributed largely to the art of taxidermy, gathered specimens for the Museum in different parts of the world, and gave to science the product of keen observation with clear independent deduction. To other and younger ornithologists he gave the inspiration of a boyish enthusiasm for field investigations, never lost. William Palmer's published papers are varied and scattered, and it is very nice that a list of them follows this memorial sketch.

Lincoln describes methods and traps (illustrated) for taking Ducks for banding purposes, and gives details of returns from banding 206 Ducks at a single station north of western Lake Ontario in the fall of 1920 by Mr. H. S. Osler.

These birds were mostly Mallards and Black Ducks, the majority whereof migrated down the Mississippi Valley; a smaller number crossed the Alleghanies to reach the Atlantic coast at Chesapeake Bay. Two Ring-necked Ducks, banded, seem to have followed the latter course and were killed respectively in Virginia in November and South Carolina in January. Several Blue-winged Teal were banded, but the early migration of this species seems to have carried them beyond the United States before the opening of the gunning season. One, however, was taken in the West Indies, September 24.

L. R. Talbot, operating S. P. Baldwin's trapping station at Thomasville, Ga., in the spring of 1922, met with a Brown Thrasher now at least eight years old.

In 'Bird Notes from North Greenland,' Langdon Gibson presents interesting field

observations from an Arctic expedition some years past. Water- and shore-birds were noted on these far northern summer grounds from the South at various dates in June, as follows: Glaucous Gull, June 2 to 10; Ringed Plover, June 5; Brünnich's Murre, Old Squaw, and Northern Eider, June 6; Red-throated Loon and Dovekie, June 8; Knot, June 11; Parasitic Jaeger, June 12; Sanderling, June 14; Arctic Tern, June 16; and Turnstone, June 21.

Joseph Grinnell in 'The Rôle of the Accidental,' points out that the occurrence of stray birds outside their range is a natural phenomenon incident to a possible occupation of new territory by a species. He would restrict the term 'accidental' to cases where a species has occurred but once. In the opinion of the reviewer this term, if quite so narrowly restricted, would lose some of its usefulness. On the other hand, it is doubtless frequently employed too broadly. A bird which has occurred sufficiently often in any territory to be expected again—for instance, the Arkansas Kingbird in the East—should not be called an 'accidental.'

McAtee gives a statistical study of the food of the Shoveller Duck; A. A. Saunders, a very thorough descriptive study of the songs of the Field Sparrow. R. C. Harlow in 'The Breeding Habits of the Northern Raven in Pennsylvania,' gives a considerable contribution to the life history of that bird. The date of the laying of its first egg is found to vary from February 22 to April 5. N. Kuroda and T. Mori, 'On Some New and Rare Birds from Corea,' is a short systematic paper in which two new subspecies are described. C. C. Sanborn, 'Recent Notes from an Old Collecting Ground in Northeastern Illinois,' gives annotations on some twenty-five species.

As usual 'General Notes' contains a variety of items of faunal interest. Pearson has had the good fortune to observe four Whooping Cranes in Texas in December, 1921. C. A. Urner gives full details of his observation of

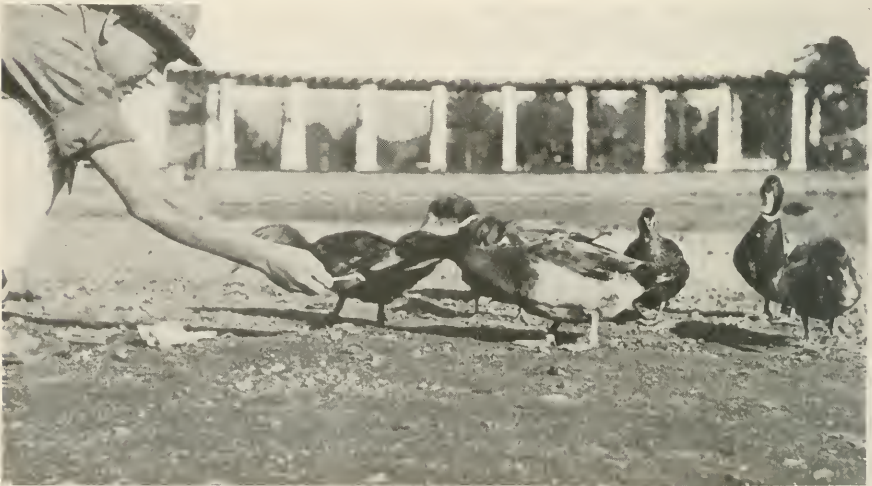
Greater Yellow-legs at Elizabeth, N. J., in summer, already noted in the October *Auk* preceding. There is mention of storm-driven Longspurs in Colorado (Bergtold) and Nebraska (Bessie P. Reed). J. E. H. Kelso records peculiarly favorable observations on diving birds using and not using the wings under water. Items by C. W. Townsend and H. H. Beck touch on the interesting subject of bird music. In the latter case it should be noted that whereas the aerial music of the Wilson's Snipe is again ascribed to the birds' wings, the opinion that it is caused by the modified outer tail-feathers is rather well substantiated.—J. T. N.

EL HORNERO.—*El Hornero*, the organ of the Ornithological Society of La Plata (address Calle Peru, 208, Buenos Aires) has won its way to the first rank among magazines devoted to the study of birds. In the two issues now under review, Nos. 3 and 4 of Vol. II, Dr. Dabbene's scholarly review of the 'Petrels and Albatrosses of the South Atlantic' is a notable contribution to the literature of systematic and faunal ornithology. In No. 3, August, 1921, we have also 'Remarks on the Neotropical species of the genus *Anthus*' by C. E. Hellmayr, who describes three new forms. 'A List of the Birds of the Falkland Islands' by Richard H. Wace, who records the arrival of the English Spar-

row in vessels in November, 1919; 'Notes on Paraguay Birds' by Carlos Fiehrig, who records the discovery of a young Cuckoo (*Tapera naevia*) in the nest of *Philydor rufus*; 'Studies of Birds in Relation to Agriculture' by F. Lahille; Tubinares observed in the South Atlantic, by W. B. Alexander, and several pages of notes, news, and reviews.

In addition to the second part of Dr. Dabbene's paper, No. 4 (April, 1922) contains 'Notes upon Antarctic Birds,' by A. G. Bennett; 'List of Birds Collected in Las Eosas,' by J. B. Daguerre; 'Capture of *Thalassogeron eximius* in the Province of Buenos Aires,' by Roberto Dabbene, with a key to the group in which this species belongs; 'Birds in South American Folk-Lore,' by R. Lehmann-Nitsche, and 35 pages of notes, news and reviews. Obviously no working ornithologist should be without *El Hornero*. —F. M. C.

THE Essex County [Mass.] Ornithological Club issues a useful pocket check-list of Essex County birds. The method of arrangement places a maximum of information in a minimum of space and might well be employed for similar lists from other localities. Copies of this publication may be obtained from Ralph Lawson, Secretary, 88 Washington Square, Salem, Mass. The price is not stated.



WILD MALLARDS AT LAKE MERRITT, OAKLAND, CALIF.
Photographed by Tom Stevenson, September 15, 1921

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Bird-Lore's Motto:

A Bird in the Bush Is Worth Two in the Hand

WHEN man takes a hand in regulating the affairs of nature he assumes responsibilities he often finds it difficult consistently to discharge. To his misguided efforts, for example, we owe the presence of the English Sparrow and Starling in this country, and are thereby confronted with feathered race problems which the economist views from one angle, the humanitarian from another.

When the Sparrows take possession of houses erected for Bluebirds and Martins and deny admission to the rightful tenants; when they crowd our feeding-stands and devour the seed designed for Purple Finches, Juncos, and White-throats, what part should we play? Neither bird is responsible for the presence of the other. The Sparrow does not know that he is a trespasser in our bird-houses and an unbidden guest at our feeding-stands. Why blame him?

Let us take another case. With food of many kinds and attractively placed baths, we spare no effort to induce birds to come about our homes. Finches and Sparrows of several species, Nuthatches, Woodpeckers, Chickadees, Jays, and other birds accept our invitation and we welcome them with enthusiasm. But the Hawk who helps himself to the bountiful supply of food he finds so temptingly assembled in our poultry-yards is shot at the first opportunity. How does the Hawk know that we have not prepared a feast for him as well as for the Juncos and Chickadees?

We have a friend in Florida who keeps a variety of stands and shelves on his lawn

filled with an unfailing supply of things birds love, and he is rewarded by visits from hundreds of Cardinals, Jays, Woodpeckers, Chipping Sparrows, Myrtle Warblers, Red-winged Blackbirds, and others who, to his delight, throng the place from morning to night.

He also has a small pool in which were many goldfish, and they, too, were recipients of his bounty. But one morning only half of them answered the food-call. Day by day their number grew less, and they had nearly all been made away with before a Little Green Heron was found to be the executioner. He was promptly killed, but how did he know that the invitation so cordially extended to other birds did not include him?

Thanks to an unfailing supply of food, natural and artificial shelter and the protection from feline enemies afforded by a cat-proof fence, birds have become increasingly abundant in Birdcraft Sanctuary. Every summer adds to the known population of nesting species and each winter the flocks of pensioners grow larger. But, as Mrs. Wright tells us in this issue of BIRD-LORE, the Sanctuary has become not only a home for harmless birds but a well-stocked hunting ground for predaceous ones. Crows rob the nests of eggs and young; Hawks are destructive; and last winter numerous raids were made by Shrikes. Is it justifiable to poison Crows and shoot Hawks and Shrikes?

In all the instances mentioned man is the primary cause for the conditions as related, and he should not shirk his responsibilities. In our opinion the question of humanitarianism is not the one at issue. If it were, it would certainly be more humane to kill one Hawk than to permit it to murder a dozen little Chickens, and a single Heron may be sacrificed to save a score of goldfish. If, therefore, responsibility compels us to sit in judgment on these cases, it seems to us that, basing our action on the principles of justice and fair play, and with due regard to the rights of the defendant as compared with those of the aggressor, we should protect our native birds from the English Sparrow; our poultry-yards from marauding Hawks, our fish-ponds from murderous Herons, and make our sanctuaries true havens of refuge.

The Audubon Societies

SCHOOL DEPARTMENT

Edited by A. A. ALLEN, Ph.D.

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THE HOME-LIFE OF BIRDS

THE YOUNG BIRDS, THEIR GROWTH AND CARE

Young birds at hatching are of two general types. They are either precocial or altricial. Precocial young resemble young chickens in that they are wide awake when hatched, are covered with down, and are able, very soon after drying off, to follow their parents in search for food, a large part of which they find by themselves. Altricial young, on the other hand, are almost naked when hatched, their eyes are not yet open, and they are cared for in the nest by their parents for periods varying from a week or ten days with terrestrial Sparrows, to nearly a year with the Condor and the Wandering Albatross.

In general, terrestrial, diving and swimming birds have precocial young, while arboreal birds and birds that search their food on the wing, have altricial young. Among the former are the Loons and Grebes, the Ducks, Geese and Swans, the shore-birds, the marsh-birds, and the fowl-like birds. Some young, such as those of the Gulls and Terns, remain in the nest or, at least, have food brought to them for weeks, but in other respects are entirely precocial, being wide awake, covered with down, and able to run about shortly after hatching. Other young, such as those of Hawks, Owls, Nighthawks, and Whip-poor-wills, and even Herons, are covered with thick down when hatched but in other respects are quite altricial, being blind at first and quite unable to help themselves for a long time. At the opposite extreme among altricial young are those of the Flicker, the Kingfisher and the Hummingbirds, which are entirely naked. The majority of Woodpeckers have a few hair-like feathers when hatched, and Cuckoos have them quite thread-like. Young Cuckoos and Kingfishers are worthy of attention again when they come to attain their first real feathers for, unlike most birds, they remain in the sheaths until nearly full grown. For a time the young birds seem covered with tiny lead pencils, and the transformation to the fluffy feathers, by the breaking open of the sheaths, is very rapid, requiring but a few hours. With other young birds, the transformation from almost naked babes into fluffy feathered creatures is gradual. Whatever down there is, is pushed out on the tips of the incoming juvenal feathers which begin to break their sheaths before they are quarter grown. In the case of a Red-winged Blackbird, for example, the 'pin-feathers' have pushed the down entirely out and are well grown by the end of the fifth day, and on the sixth,

the sheaths of the 'pin-feathers' have begun to break. Three days later the feathers have unfolded sufficiently to hide most of the bare spots, and by the eleventh day the young bird is apparently fully feathered, except around the eye, which area, in Blackbirds, is the last to be clothed. Of course, the feathers continue to grow after the eleventh day, but the young bird has left the nest and is already able to fly short distances. The change, however, has been gradual, requiring several days, while in Cuckoos and Kingfishers it seems to occur within a few hours.

When the young hatch they are not fed immediately, the time elapsing before the first feeding varying with different species. The method of feeding likewise varies. Many birds are first fed by regurgitation. The parent bird swallows the food and gives it to the young in a partially digested state. Some, like the Mourning Doves and Goldfinches, continue this process as long as they feed the young. Herons and Bitterns do also, at least as long as the young are in the nest, and one never sees one of these birds returning to its nest with anything in its bill. Waxwings use their crops as regular market-



HERONS REGURGITATE THE FOOD INTO THE MOUTHS OF THE YOUNG IN THE CURIOUS WAY SHOWN HERE BY THE LEAST BITTERN

baskets and return to the nest with their necks bulging with a great variety of small fruits and insects, mostly in a good state of preservation. With the majority of common birds, however, this method of feeding is continued but a short time, if at all, and it is a familiar sight to see the parent birds returning to their young with insects or fruit in their bills.

The commonest method of feeding is for the old bird to put its bill, containing the food, far down into the throat of the young. This prevents any live insect from escaping. In birds that regurgitate food, however, there are

several different methods of transferring the food. In birds like the Pelicans and Cormorants, which bring back fish in their throat-pouches, the old bird merely opens its bill and permits the young to rummage around inside. Sometimes they almost disappear down the throat of the old bird. With the Herons, as shown in the photograph of the Least Bittern, the old bird turns its head on the side and the young grasps it with a scissors-like action, dilating its lower mandibles so as to catch whatever comes out of the throat of the old bird. To the onlooker, it appears like a very clumsy performance, but little food seems ever to be wasted by spilling. Young Mourning Doves have swellings at the corner of the mouth which the old birds press when they interlock bills to inspire the proper swallowing action of the young. I once tried to raise a crippled young Dove and could not get it to swallow anything, even that was forcibly put into its throat, until I discovered the nervous adjustment between the swellings and the throat muscles. After that it was easy, for I merely had to touch the swellings and it was like pressing a button. The little bird's mouth flew open and the throat muscles commenced to work even before the food entered the bird's mouth.

With all birds there is a nervous adjustment which prevents over-feeding. Birds do not feed their young in rotation, as one might expect, but ordinarily they feed the hungriest one first and continue to feed him until some other one gets hungrier and stretches its neck further and cries louder. This might result in overfeeding the largest young one but, fortunately, when the young bird has had enough, its throat muscles refuse to work. So after each feeding the old bird looks down into the throat of the young one (the young bird, if well, keeps its mouth open for food as long as the parent is about), and if the last bug is not promptly swallowed, she takes it out again and gives it to one of the other young. It is this habit of feeding the one with the longest neck and widest mouth first that results in the fatalities to the rightful young in a nest where there is a young Cowbird, for the Cowbird always has the longest neck and the widest mouth and gets all the food.

After the young have left the nest the old birds are not so particular about putting the food far down the throat of the young, for the young bird has soon to catch insects or find food for itself. It is interesting to watch a family of young Swallows learning to catch insects on the wing. So long as they are in the nest, they are fed like other young, having the food placed far down their throats, but once they leave the nest, such caution ceases. It is but a short time before the old bird merely sweeps by the young one and drops the food into the open mouth without stopping, and when the youngsters are able to fly, the same operation is employed in full flight. It is as though the old birds were teaching the young to catch things out of the air. Young Duck Hawks learn in much the same way to pounce on birds in full flight. When the young are able to fly, the old birds merely swing by the nesting-ledge with the food in their talons, and the young ones fly out, turn over beneath

the old bird, and strike at the food as though it was being carried along on its own wings.

The amount of food which birds, especially insectivorous species, require, is always a surprise to one observing it for the first time. The classical experiment of feeding a young Robin all the earth-worms it can eat at the time it leaves the nest can scarcely be improved upon. The result with the original



SWALLOWS ARE 'TAUGHT' TO CATCH INSECTS ON THE WING
At first the young are fed like other birds but after they leave the nest, the parents merely fly past them and drop the food in passing

Robin experimented with was that it consumed 14 feet of earth-worm in one day. Experiments with young Crows have shown that they require at least half their own weight of food each day merely to exist, and that they can easily consume food equivalent to their full weight each day. Many young Crows that are kept in captivity, as well as other young birds, are starved to death because their owners do not realize how much food is required. They

do not eat very much at a time but their digestion is so rapid that their parents feed them almost continuously from daylight until dark and, as Mr. Forbush says, they eat the equivalent of at least eight full meals each day. If one wishes to be duly impressed by the amount of food required by a young bird, he should put up an observation blind by a nest of young birds of almost any species. Quite naturally they do not require as much food when the young are newly hatched as when they are ready to leave the nest. Birds that feed by regurgitation and those which bring back large pieces of food naturally do not



A FEMALE CHESTNUT-SIDED WARBLER BROODING
Young birds must be protected from heat and from cold

feed as often as those which make the trips to the nest with only their bills full. Hawks usually feed only about once an hour; Hummingbirds, once in twenty minutes; but a pair of Chickadees that I watched at their nest last summer made 35 trips to the nest in 30 minutes. A pair of Rose-breasted Grosbeaks are recorded as feeding their young 426 times in 11 hours, and a House Wren, 1,217 times in the 15 hours and 45 minutes of daylight.

When the young are small, until they have developed their coating of feathers, they require frequent brooding by the old bird to keep them from getting cold and likewise to keep them from getting too hot if the nest is exposed to

the sun. Altricial young are never brooded after they leave the nest but precocial young are brooded for five or six weeks (or until they grow their juvenal feathers), wherever it strikes the fancy of the old bird, though seldom in the nest which they have left. A pair of Canada Geese, however, that I had in captivity, took their goslings each night back to the old nest to be brooded, though it was not much more than a depression in the ground. Florida Gallinules, and doubtless other marsh-birds, as well, often make new nests or rafts of rushes on which to brood their young. Wood Ducks, Grebes, and Swans often take their young on their backs and brood them beneath their wings. Indeed the Grebes often take this method of conveying their young to safety, closing their wings down tight upon them and diving with

them. The European Woodcock, on the other hand, is said to convey its young to suitable feeding-spots between its thighs, flying with dangling legs, and it is apparently a common practice with Rails to seize their young by any convenient appendage and rush them to safety.

The varying degrees of attachment for their young which birds show and their methods of expressing it are always interesting to observe. Few birds seem to feel much of a parental instinct when the young are freshly hatched. The instinct increases daily and reaches a maximum at the time the young are ready to leave the nest. The same is true of the bird's instinct to incubate. When the eggs are freshly laid the birds will desert them readily, but at the time they are hatching, even the most timid birds will cling to the nest in the presence of danger. Bird photographers should always bear this in mind and never try to photograph birds at their nests when they are just beginning to incubate or just beginning to brood. Most Hawks, Herons, Cormorants, Pelicans, Yellow-breasted Chats, and Mourning Doves have their parental instincts very poorly developed and readily desert their eggs or young in the presence of danger. Most Chickadees, and a great many Warblers and Vireos, on the other hand, have their parental instincts so highly developed that they pay no attention to dangers while they are incubating or brooding. At least they will permit of very close approach and even let you stroke them while they cling to the nest. Between the two extremes there are all gradations, no two birds behaving exactly alike in the defense of their nests or young.

Many birds feign being wounded in an attempt to lure one away from the nest and drag themselves pitifully over the ground in the hope that the enemy will follow them and lose track of the nest or young. Other birds dart at one's head and attempt to inflict blows with their bills, their wings, or their talons, while the majority merely express their distress by loud calls which attract all the other birds to the vicinity.

It is interesting to observe the varying times at which fear first develops in the young birds. It is apparently instilled into them by their parents, for when eggs from wild birds are hatched under domestic birds, the young seem never to develop the sense of fear for human beings. There are some exceptions to this statement, however, especially among precocial birds which are extremely timid even when hatched under most quiet hens and lose their fear very gradually. In the wild state, precocial young seem to respond to this



A BABY RUFFED GROUSE TWO DAYS OLD
A good example of a precocial young, well covered with
down and wide awake when hatched
Photographed by A. A. Allen

fear instinct as soon as they have dried off and are able to run. With altricial young, on the other hand, it is not until they are developing their feathers, a few days prior to leaving the nest, that they crouch and try to hide at one's approach. Before that time, they stretch up their necks and open their mouths for food just as freely for a human being as for their parents. At about the same time the young birds apparently come to a realization of the meaning of



MOST BIRDS PLACE THE FOOD FAR DOWN IN THE THROATS OF THE YOUNG, AS SHOWN WITH THE RED-WINGED BLACKBIRD

the different calls of their parents and crouch for one note, stretch up their necks at another, or remain passive for a third. Anyone at all familiar with poultry knows of the various calls of the old hen to her chicks. Her vocabulary is not extensive but no one would deny the fact that she has a method of conveying many different instructions to her chicks. They all crouch when she cries 'hawk,' they scatter when she cries 'cat,' and they rush to her when she cries 'food,' etc. Other birds are just the same but it takes a discerning ear to catch the differences in notes, and it is impossible to put them in print. Distress calls are usually recognized by all species of birds and they fly to the scene of trouble. Whether the other notes are understood by all species, or whether each species has its private language, we

have no very good way of knowing. It is a study that will take a refinement of observation that we have not yet attained, and there is no need of theorizing here upon a subject for which we have so few facts.

It is said that the call-notes of a bird are instinctive and that its song is learned by imitation, but the latter fact has not been entirely proved. Cer-

tainly a Crow will caw and a Duck will quack whether or not it ever hears any others of its kind, and I am inclined to the belief that a Robin would sing like a Robin if it never heard any other bird sing. But when young birds are raised by other species, never hear their own kind and continually hear the songs of their foster parents, they do seem to acquire songs resembling more those of their foster parents than their own. We should remember, however, that the power of imitation is quite general among birds and not confined to the Mockingbirds alone, though with them it reaches its greatest perfection. The only fair test would be to raise a young bird to the singing stage without its hearing any other song and, to the best of my knowledge, this has never been done.

All young birds by the time they leave the nest have well-developed distress-calls and food-calls. Some young, like the Baltimore Orioles and the Florida Gallinules, never stop calling except when notified by their parents that danger is near. Other young call when they are hungry or think they are lost, and thus, though the brood may be quite scattered, the parents are able to keep track of them. Many persons, finding a young bird without its parents, think it has been deserted and feel that



AFTER FEEDING THE YOUNG, THE FEMALE ORDINARILY CLEANS THE NEST, AS SHOWN BY THIS FEMALE REDWING

they must take it home and feed it. This is a mistaken kindness for, usually, it merely signifies that the brood is somewhat scattered, and that the parents are busy feeding the other young; particularly, if the young bird is quiet, for that indicates that he has just been fed and that the old birds may not be back for some time. If the young bird is put up out of reach of cats, the parents will sooner or later find it and care for it,

for its food-call will carry as far as it could possibly have flown since its previous feeding.

The syrinx of a young bird, and therefore its song, does not develop fully, ordinarily, until the winter or following spring, though I believe there are instances of domesticated song-birds singing the same year they are hatched. It is not the case with wild birds, however, though some of the shaky voices that we hear in the fall may possibly be from early hatched birds.

The time required for the young bird to acquire its full plumage varies with different species. Ordinarily, by the time the wing-feathers are full grown, the body feathers of the juvenal plumage begin to drop out and the first winter feathers come in. If the male and female are alike, this plumage, which is usually fully acquired by September, will be almost indistinguishable from that of the adults, but, in brightly colored birds where the male and female are different, it will resemble the female or the male in winter plumage. The next spring it will have a complete or a partial moult of its body feathers to bring it into its breeding dress just as in the adult. Immature Scarlet Tanagers, Goldfinches and Indigo birds then closely resemble the adults, being only slightly less brilliant. With some of the Warblers, however, like the Redstart and Myrtle, there is but a slight moult and the immature male still resembles the female with a few of the male feathers. This often results in the recording of female birds singing. Some birds seem to require even more than the two years to acquire the full brilliancy of plumage, but ordinarily, after the second year, the health of the bird will affect its plumage more than its age.—A. A. A.

QUESTIONS

1. What is meant by altricial young and what groups of birds have altricial young?
2. What is meant by precocial young and what groups of birds have precocial young?
3. Describe the covering of as many young birds as you have observed.
4. How do young Cuckoos, Kingfishers, and Chimney Swifts differ from other altricial young?
5. How long does it take for young birds to acquire their juvenal plumage? Have you ever made any observations of your own upon the time spent in the nest by young birds?
6. What is meant by regurgitation? How long are young birds fed this way?
7. Describe other methods of feeding the young employed by birds?
8. What prevents young birds from being overfed?
9. How much food do young birds require? Have you ever made any observations of your own upon the number of times a nest full of young birds are fed?
10. How long are young birds brooded and what is the purpose of brooding?
11. In what ways do birds express their attachment for their young?
12. When does the fear of man develop in young birds?
13. What would you do with a young bird if you found it apparently without parents?
14. How long does it take for young birds to acquire their full plumage?

FROM YOUNG OBSERVERS

A MENTALLY DEFICIENT ROBIN

Last spring a female Robin chose, as the site for her nest, the flat top of a pillar on the piazza of a club house at Lake Wickaboag, West Brookfield, Mass. It was an ideal place for a nest, and we, who were her observers, thought she showed great wisdom in selecting it.

She was very industrious and, the first day, brought quantities of twine and dry grass with which to build her home. Her mate contributed very little to the actual house-building but he sang his sweetest to cheer his spouse as she worked. It seemed as if the nest would be completed within two days.

To our surprise, however, the next morning the nest material was strewn all over the piazza and the lawn, and Madame Robin was busily engaged in picking it up and replacing it. We thought that perhaps rats had upset it, and we admired the bird for her courage in starting all over again.

The same misfortune came to light the following day and we decided to investigate. On examination of the nest, we found that the bird had not used the mud which characterizes the average robin's abode, and consequently the night winds from up the lake had wrought havoc with the light, unattached material.

After a day or two her mate disappeared and did not return. She was persistent and even tried the top of another pillar, but she had no greater success. Her efforts went on fruitlessly for three weeks. Then she suddenly disappeared and we saw no more of her.

This incident has been a source of discussion among those who witnessed the persistent effort of the bird, and we have come to the conclusion, finally, that she was mentally deficient. No other solution seems plausible. She certainly had the desire to build but evidently did not have the ability. Her mate discovered it early and instead of helping her, simply deserted her for a more capable wife.—JOHN H. CONKEY, *Boston, Mass.*

[Interesting episodes like this are usually difficult to explain. The Robin may have been mentally deficient but even a normal Robin would have difficulty in combating any agency that destroyed its nest at night when it could not know what was happening. Robins ordinarily begin their nests with a platform of straws before adding the mud, and immature birds, building for the first time, are often slower about beginning the mud layer. This may have been an immature bird, though the persistence of its attachment to the nesting-site indicates maturity. Incidentally, its persistence in nest-building, even after the disappearance of the male, is a good example of the attachment of many birds to the nesting-site, rather than to the mate, as mentioned in the last issue of this department.—A. A. A.]

KILLDEERS IN NORTHERN NEW JERSEY

I feel quite proud this year, for I have found and watched the nest of a bird very rare in this vicinity. (I live on a farm on Chestnut Ridge, on the

northeastern boundary of New Jersey.) Last year the first Killdeer's nest that I know of was found on a neighboring farm.

All this spring we noticed the Killdeers calling in our meadow and around the fields. For a while we kept one of our horses grazing in a large field before it was plowed. One day the Killdeer became frantic, screaming '*Kill-dee-er, Kill-dee-er*' right before him. It was easy to guess that they must have a nest near by. When the horse went away, they stopped calling. Soon we found the bird leading the calf away. She ran a few steps, then fell down on the ground, flapping her little brown and white wings as if wounded. The calf followed and smelled her to see what she was. The Killdeer jumped up and pecked the calf's nose, then ran off again.

The next day, my mother saw the bird right between the horse's feet, lying still, but screaming as loudly as it could. She decided the nest must be there, so she went to the spot. The Killdeers, unlike the friendly Catbirds and Robins that nest near our house, were more afraid of her than of the horse. They screamed louder and louder as my mother approached, and tried their best to attract her away. She drove the horse away and found the nest.

The nest consisted of a shallow depression in the ground, with a few roots and dry, brown weeds. There were four eggs, arranged with the points toward the center. The eggs were a rather muddy light gray, with thick speckles and scrawls of a dark, greenish brown. It was April 12, 1922, when we found the nest and the eggs did not hatch until May 6.

The young were very funny little creatures, that matched their surroundings so well that they could hardly be seen. About four hours after the first egg hatched, they had all left the nest. The next afternoon, we found them down in the swamp. They looked somewhat like little Quail except that their legs were much longer. Their shape and manner of walking reminded me of young Sandpipers. When we found them, they were following their mother just as a brood of chicks follows the hen. The mother pulled up worms, and got other things for them to eat. Already they had learned to hide. Whenever anyone approached, the old bird screamed a shrill '*Ee-ee!*' Immediately the young would scatter and each would settle down beside a stone. It was practically impossible to see them unless they moved.

We saw them quite often afterward in the meadow. The other day, my father saw a flock of eight. Evidently they had been successful in raising the whole brood in spite of Hawks, Crows, and other dangers. I cannot understand how they escaped, for, in spite of every precaution, we lost many chicks and little goslings. Now, one of our neighbors says he has found another flock of little Killdeers.

The Killdeer is very different in character from most of the birds that build near our home. He is not nearly so friendly, for one thing. We have nests of the Baltimore Oriole, the Catbird, the House Wren, the Robin, the Song Sparrow, the Yellow Warbler, the Least Flycatcher, the Barn Swallow,

the Cliff Swallow, the Chewink, the Flicker, the Redstart, the Chipping Sparrow, and several others very near the house and barn. All of these birds seem to know a friend immediately. If we go out to rescue any one of these from danger, they stop calling and seem perfectly confident. The Killdeer, on the contrary, becomes more afraid than ever if anyone tries to help her. Its call grows louder and more plaintive until it becomes a despairing scream. In spite of this apparent fear of man, it builds in our fields, within a very short distance of our house and barn. At all hours of the day and night, the sad, plaintive call of the Killdeer is heard. It has a very weird sound when heard in the middle of the night, suddenly breaking the silence. I value this new acquaintance more because of its total difference from all of my other bird friends.—RUTH M. BAILLIE, (Age, 17 years), *Allendale, N. J.*

[Let us hope that the Killdeers will return to this farm where they are so well cared for every year, and that Miss Baillie will continue to make the most of her opportunity to observe them as she has done this year.—A. A. A.]



CATBIRD FEEDING YOUNG
Photographed by Joseph Pollak, Carman, N. Y.

HERONS OF THE UNITED STATES

By T. GILBERT PEARSON

The National Association of Audubon Societies

BULLETIN NO. 5

REDDISH EGRET (*Dichromanassa rufescens*)

DESCRIPTION.—There are two very distinct phases of plumage found in Reddish Egrets. One that we may call the 'dark phase' is by far the more common in this country (see Plate I, No. 1). In this plumage the feathers of the head and neck are rufous chestnut, while the back, wings, and underparts are of a bluish slate-color. From bill-tip to tail-tip it measures pretty close to 30 inches, or about 7 or 8 inches more than the Little Blue Heron, which at a little distance it strikingly resembles.

The other plumage may be described as the 'white phase' (see Plate I, No. 2). Every feather on the bird is pure white. This astonishing difference in plumage between individuals of the same species has never been satisfactorily explained. Neither age, sex, season, nor environment appears to have anything to do with determining which plumage an individual bird shall wear. Out in the village of rude stick nests, of the many eggs that hatch, here and there are those that will produce baby birds destined to wear white plumage all of their days. In both phases the birds in the breeding season are adorned with long white aigrette plumes growing from the back.

At one time the white bird was supposed to be a distinct species and was called Peale's Egret.

RANGE.—Reddish Egrets are found in the Bahama Islands and the West Indies, as well as on the Pacific Coast of northern Mexico and along the Gulf Coast to Guatemala. No other Heron has so restricted a breeding range in the United States. So far as we are aware it is now known to rear its young in this country only on islands in the bays and lagoons along the Gulf Coast of southern Texas, from near the center of Cameron County to Mesquite Bay in Aransas County, a distance of only 125 miles. Unmated birds wander northward as far as Louisiana, but it is doubtful if they breed in that State. Many years ago the species was not uncommon in southern Florida, but apparently no occurrence of its breeding in this State has been recorded for a long time. So far as known, it is found in Texas only about salt waters or those that are brackish. Apparently it always remains in the immediate coast country.

GENERAL NOTES.—In the office of the National Association of Audubon Societies it had long been feared that the Reddish Egret had become extinct as a breeding bird within the borders of the United States. It was, therefore, a delightful surprise to the writer to discover on June 20, 1918, a colony of

these interesting birds on the Second Chain-of-Islands, lying between Mesquite Bay and San Antonio Bay, Texas. This was at a spot about twenty miles north and east of Rockford. These islands were at that time twelve in number and all small, the largest being not over two acres in extent. Typical of all the islands along that coast, they were composed of mud, sand, and oyster shells. They were covered more or less with stunted mesquite, yucca, and prickly pear cactus. Nearly all were occupied by breeding birds.

Nests of the Reddish Egrets and various other Herons were scattered everywhere among the cactus and other bushes, at heights varying from



REDDISH EGRETS IN THE ROOKERY ON SECOND CHAIN-OF-ISLANDS, GULF COAST OF TEXAS. YOUNG LOUISIANA HERONS ON NEST IN LOWER LEFT-HAND CORNER

Photographed by William L. and Irene Finley

eight inches to seven feet from the ground. Of the Reddish Egrets, it was estimated there were 1,250 pairs in the colony. Many nests contained four or five blue eggs, and numerous young were running about in the bushes or along the narrow beaches.

Two years later, on June 21, 1920, I again visited this group of islands, this time in company with Mr. and Mrs. William L. Finley. The heavy growth of cactus and thorny bushes had largely disappeared, leaving only a few dead mesquites. Most of the nests, therefore, were built on the ground or on drift matter carried in by the sea. On one island many were built on wild sunflower plants at heights varying from one to three feet from the ground. The island had also been greatly reduced in size by the ravages of storm-tides. Only six of the islands were this year occupied as nesting places by the various Herons. I estimated the Reddish Egrets to be present to the extent of about 500 pairs. Among the hundreds of young climbing about the nests or running

through the weeds underfoot, only one in the white phase was found, and only one white adult bird discovered, the latter lying dead on the ground by its nest.

Bird Island, in the northern part of Laguna de la Madre, some distance below Corpus Christi, yielded two nests of the Reddish Egret, and six birds were seen. Both nests were on the ground.

In Brownsville I was informed by R. D. Camp that on Green Island, lying in the Laguna, 32 miles north of Point Isabel, he had, the autumn before, observed the remains of a number of dead young Herons scattered about under the bushes, which he thought indicated that Herons had been breeding there.

On June 3, 1920, in company with Mr. Camp and George C. Shupée, of San Antonio, a visit was made to this spot. The island is several acres in extent and the higher portions are very densely covered with mesquite, prickly pear cactus, maguey, and Spanish bayonet. It proved to be the breeding ground of a very large colony of Herons. This certainly was the home of 5,000 water birds—possibly twice that many. The most numerous species was the Reddish Egret. Here thirteen adult birds in the white phase of plumage were counted, most of which were observed as the birds came in the evening.

Mr. Camp, as a representative of this Association, guarded the Green Island Heronry throughout the breeding season of 1922. He estimated the number of Reddish Egret nests this year to be about 1,800.

One very characteristic note of the Reddish Egret which I noticed, both at the rookeries and on the feeding grounds, is a bugle-like cry, decidedly more musical in its nature than the ordinary Heron squawk. It is to be hoped that this large, handsome bird may not only continue to be numerous on the southern coast of Texas, but that through protection and good fortune its numbers may increase so that they may again adorn the coastline of our entire southern country.

LITTLE BLUE HERON (*Florida cærulea cærulea*)

DESCRIPTION.—There are three distinct phases of plumage in the Little Blue Heron, and confusion in the matter of identification, therefore, is frequent.

Dark Phase (Plate I, No. 5).—What is supposed to be the fully adult plumage in all instances is represented by the bird whose head and neck are maroon-chestnut, while all the rest of the plumage is dark bluish slate-color.

White Phase (Plate I, No. 3).—All Little Blue Herons while young are covered with white down. When the feathers come, the plumage is pure white with the exception of the tips of the long wing-feathers (primaries) which are washed in very dark blue. The skin of the legs and feet is greenish yellow. The birds remain in this plumage for two years, although it has been suggested that some individuals may continue in the white phase throughout life. The writer has often found white Little Blue Herons sitting on eggs or caring for their young. One should not, however, regard this as evidence that the birds are more than two years of age, as some other species are known to

breed while still dressed in immature plumage. These white birds often are mistaken for Egrets, and many of the reports that come to the office of the National Association, telling of the occurrence of 'Egrets,' undoubtedly refer to the Little Blue Heron in the white phase. During July and August many of them wander northward for a time and are often seen as far as New England. These northward summer migrations seem to be undertaken almost entirely by the white birds, a blue one very rarely being reported. Upon the approach of cold weather they retire again to the South.

Pied Phase (Plate I, No. 4).—When the bird is changing from white to dark plumage it assumes a most unusual appearance. The molting takes place very gradually. The white feathers drop out a few at a time, their places are quickly taken by dark ones, and the bird soon acquires a polka-dot appearance. At first it is a white bird with dark spots scattered about over it, but these spots increase in number until in time we have a dark bird with only a few white spots visible. By autumn the new plumage is fully acquired, the skin of the feet and legs having meanwhile become black.

The size of the bird appears not to vary in its different aspects of plumage. An average specimen is 22 inches long; the wing (from outer joint to tip) is 10¼ inches long, and the bill is 3 inches long.

RANGE.—The third edition (revised) of the 'Check-List' of the American Ornithologists' Union gives the following reference to the range of this bird:

"North and South America. Formerly bred from Missouri, Indiana, Illinois and New Jersey to western Mexico and south to Argentina and Peru; in the United States now breeds locally on the Gulf Coast and in South Carolina; wanders casually to Nebraska, Wisconsin, Ontario, New England, and Nova Scotia; winters from South Carolina southward."

The territory given as its breeding range in the United States is inadequate, and to many may be misleading. The Little Blue Heron is rarely if ever common along the sea beaches of the coast. It is mainly a bird of fresh and brackish water areas.

The writer has visited nearly every known breeding colony of water-birds on the islands along the Gulf Coast of the United States, and has no recollection of ever having seen a Little Blue Heron's nest in one of them. Their nesting places may be found at various points in the Gulf States, but not actually on the coast. There is a colony at Avery Island, Louisiana, but that is many miles from the sea beaches and the nesting place is in a fresh water pond. On the Atlantic Coast the birds breed on Cumberland, St. Catherine's, and Ossabaw Islands on the Georgia Coast, but these are very extensive islands with numerous fresh and brackish water marshes where the birds may seek their food. The same statement may be made of the colony that has long been established on Craney Island in Carteret County, N. C. A possible exception to this rule may be found in the colony reported to occupy a little island in Mosquito Inlet Bird Reservation, near Daytona, Fla.

To find most of their breeding colonies one must search inland. In May, 1921, the writer visited twenty-one colonies of Herons, all situated in a small group of counties lying almost exactly in the center of the northern part of the Peninsula of Florida. These were the counties of Alachua, Marion, Putnam, Clay and Lake. I once visited a populous breeding community near Red Springs, Robeson Co., N. C., 75 miles in a direct line from the coast. For thirty years at least, Little Blue Herons have gathered annually in a breeding place on the Orton Plantation, Brunswick Co., N. C. This is about 15 miles inland. I have found them breeding elsewhere in North Carolina, South Carolina, Florida, Mississippi and Louisiana, but invariably some little distance back from the coast. In the Heron colonies of the coastal country of Texas, the Little Blue Heron has not been found during recent trips to the region. Dr. E. W. Nelson has written that there is a colony in 'southeastern Missouri,' and W. D. Howser, a few years ago, reported a breeding place on Reelfoot Lake, Tenn.

GENERAL NOTES.—This species inhabits much of the extensive marshlands in our Southland. When traveling through the pine barrens of our South Atlantic and Gulf States, one will often come upon shallow ponds or small lakes whose margins and shallow reaches are more or less grown over with various water plants and scattered bushes; farther out the leaves of the water lilies are usually much in evidence. About the pond the bare grasslands, or prairies, extend from 100 feet to many hundreds of yards. Here is the natural and favorite feeding ground of the Little Blue Heron. Singly, or in small flocks, they may be seen wading slowly along in the shallow water or standing stationary with heads erect, watching the intruder from a distance.

Their food consists of water insects, frogs, and especially minnows that swarm in such regions. Sometimes these lakes contain islands covered with buttonwood or willow bushes, and these frequently are chosen as nesting sites for various Herons of the neighborhood. Other favorite breeding places of the Little Blue Heron are the small ponds in dense hammock lands that surround many of the lakes. Here, in the heavy semi-tropical forests, one may find quiet little ponds thickly grown with bushes, and such places the Herons love.

Their nests are composed of coarse sticks, with usually a slight depression at the top, and lined with finer twigs. One may find them situated all the way from 4 to 15 feet above the water—rarely higher than this. They are very sociable in their nesting habits, and the cradles with eggs may often be found within two or three feet of one another. Several species of Herons usually assemble in a nesting colony, and sometimes one may find a number of Water Turkeys also associated with them. Little Blue Herons are known to breed in the 'immature' or white phase of plumage, and in most southern heronries some of them will be seen in attendance on their young. Near Levy Lake, Fla., I once found a heronry composed entirely of white Little Blue Herons.

About sixty nests were counted and not one individual in the adult blue plumage was observed.

The dull blue eggs are generally four or five in number and it is supposed to require about three weeks for them to hatch. Herons are very noisy birds around the rookeries, and especially when the young have hatched and grown strong enough to add their clamor to the general uproar, the cries may be heard at times for several hundred yards.

The chief natural enemy of this species, as well as of our other southern Herons, is the Fish Crow. Numbers of these black bandits stay in the neighborhood of every rookery. In fact they light among the bushes and, hopping from limb to limb, peep and watch until they see a Heron leave its eggs and then, often before its mate can take its place, the Fish Crow dashes in, thrusts its bill into an egg, and with it thus transfixed, flies away to some favorite limb to enjoy its ill-gotten booty.

Little Blue Herons, in common with the other Herons of our southern rookeries, are almost always known as Cranes. You will hear them spoken of as 'White Cranes,' or 'Blue Cranes,' or 'Spotted Cranes.' In eastern North Carolina this species is frequently called the 'Scoggen.'

SNOWY EGRET (*Egretta candidissima candidissima*)

DESCRIPTION.—The plumage of this Heron is pure white, (see Plate I, No. 6). Growing from the region of the upper back are about fifty delicate plume feathers known in the millinery trade as 'cross aigrettes.' These usually are about 8 or 9 inches in length and recurved at their tips. They constitute a distinctive nuptial adornment, although, as a rule, they are not shed for a considerable time after the young have left the nest. Mr. Lee Crandall tells me that Snowy Egrets kept in captivity in the New York Zoölogical Gardens acquire their plumes in December, and that with the exception of the loss of an occasional feather, they are not shed until about September 1. This statement, of course, refers to birds kept in unnatural conditions. The exact length of time in which they are worn in the state of nature has, so far as I am aware, never been fully determined.

The bill of the Snowy Egret is very black, with a little yellow at the base. The legs also are black and the feet are bright yellow. From the end of the tail to the bill-tip, this bird measures about two feet.

RANGE.—The principal range of the Snowy Egret is tropical and sub-tropical America, though to some extent it also breeds in temperate regions. At one time it was known as far north as New Jersey, Illinois, Nebraska and Oregon. To the south it extends to Chile and Argentina.

Due to persecution, its range in the United States has been greatly reduced. For the past twelve years the National Association has exerted much effort in seeking out and employing men to guard the few remaining breeding places

of these birds in our country. During the summer of 1922 our guards protected ten colonies of Snowy Egrets. They were distributed as follows: One at Craney Island, east of Beaufort, Carteret Co., N. C.; one at the reservoir of the Santee Club, one at Penny Dam Reservoir, and one at Grimball's Buzzard Island, Charleston Co., S. C.

In Florida, colonies were protected at Orange Lake, Levy County; west of Micanopy in Alachua County; and San Sebastian River colony in St. Lucie County.

In Louisiana, one colony was guarded in West Feliciana Parish; and one in Cameron Parish.

In Texas, birds were breeding in our protected Reddish Egret colony on Green Island, Cameron County.

In addition to the above there were colonies of nesting birds on Orton Plantation, Brunswick Co., N. C. (*Bird-Lore*, 1920, p. 255); and on Ossabaw Island, Chatham Co., and St. Catherine's Island, Liberty Co., Ga. (*Bird-Lore*, 1922, p. 185). They were also undoubtedly breeding on Cumberland Island, Camden Co., Ga. ('Wilson's Bulletin,' June, 1922, p. 85); at Avery Island, Iberia Parish, La.; and at Wolf Point Ranch, Matagorda Co., Texas (*Bird-Lore*, 1920, p. 321).

William Leon Dawson reported (*The Condor*, 1915, p. 97) on May 26, 1914 a small colony in Merced Co., Calif.; and Dr. E. W. Nelson has written me of a breeding place at the mouth of Bear River in Utah. During recent years they were also reported breeding on Mosquito Inlet Reservation, Volusia Co., and at Passage Key Reservation, Manatee Co., Fla.

Most of these nesting places are in the immediate vicinity of the coast or the swampy lowlands of the coastal plain. I know of only one in the Southern States that is situated as far as 90 miles inland. This is in a place known as 'The Burn,' about 30 miles south of Natchez, Miss. (*Bird-Lore*, 1920, p. 259.)

GENERAL NOTES.—It is the custom of most American Herons while feeding to stand motionless and allow their prey to swim up to them, or with great care move slowly through the shallow water, therefore giving the appearance of sedateness and great dignity. The feeding habits of the Snowy Egrets are noticeably different. They rush on their prey and turn and dart about in an extremely active manner. While thus engaged, with wings half raised and plumage fluttering in the wind, they present a most charming and animated sight. Like all other Herons they feed on such small life as they can capture along the margins of ponds and sloughs. They are particularly fond of minnows and, like the Little Blue Heron, feed their young chiefly on this diet. The fish and other prey are never carried in the bill. It is always swallowed as quickly as captured and later is regurgitated into the throats of their young. They make long flights in quest of food, sometimes going as far as 15 miles or more from the heronry for this purpose.

They assemble to breed with others of their kind in heronries, usually called

'rookeries.' One seldom, if ever, finds them breeding by themselves; that is to say, there are usually other species of Herons present. The nests, placed in low swamp-trees or bushes, are rude affairs made of sticks and twigs, and the four or five blue eggs are usually indistinguishable from those of the Little Blue Heron. While feeding they are generally silent, but about the nest sometimes emit squawks and guttural notes, especially when engaged in combats with their neighbors. In watching them in the colonies I have often thought they must possess an irritable nature not usually exhibited by the more sedate Little Blue and Night Herons.

On visiting a Heron rookery one unfamiliar with the habits of the birds



SNOWY EGRETS IN THE BREEDING COLONY AT ORANGE LAKE, FLORIDA, WHICH IS OWNED AND PROTECTED BY THE NATIONAL ASSOCIATION OF AUDUBON SOCIETIES

Photographed by O. E. Baynard

may easily get an inadequate idea of the numbers resorting there. During the day many are away feeding. The birds are coming and going all the time, hence one can learn of the full number only when the whole population assembles. It is a fine sight to watch them coming in to roost. Singly or in scattered flocks numbering from two or three up to a dozen or more, they appear flying high or low according to the surroundings and strength of the wind.

At Orange Lake, Fla., they often approach the breeding island, flying at a height of only 4 or 5 feet above the water. When the colonies are in little ponds closely surrounded by high forests the birds must necessarily fly in over the tree-tops and then drop down to their nests. A situation somewhat similar to this exists at Avery Island, La., where Edward A. McIlhenny, by

exercising ingenuity, based on a knowledge of the habits of the birds, has built up a colony of perhaps 2,000 nesting Snowy Egrets almost in his dooryard. Late in the afternoon these and other Herons of the colony begin to arrive in numbers. Standing with Mr. McIlhenny on his lawn I have seen the birds arriving at a height of from 100 to 200 feet, until nearly over their nests, then with wings partly closed they volplaned almost to the bushes. A few vigorous wing-beats, and they would settle among the assembled hosts. Flocks of these snowy creatures dropping from the sky make a stimulating and most charming spectacle.

This is one of the birds that has been extensively shot by agents of the feather trade, the result of which has been that but for the active efforts put forth to guard their nesting places, the species would probably be on the very verge of extinction in the United States today. Thanks to the liberality of members of the Audubon Society and the friendly guardianship afforded by a few private individuals, there are still some thousands of these beautiful creatures left in our southern country, although their numbers have not materially increased in the United States even under protection the past ten years. Many people still shoot them when they have the opportunity, and Fish Crows are ever on the lookout to take their eggs.

It would appear that the preservation of the species can be assured only by a persistent effort of guarding their nesting and feeding territories.

If this can be continued without interruption until the rising tide of interest in bird protection can penetrate the minds of the people dwelling about the haunts of the Snowy Egret, its numbers may again increase and the species be saved to our country.

(To be continued)



The Audubon Societies

EXECUTIVE DEPARTMENT

Edited by T. GILBERT PEARSON, President

Address all correspondence, and send all remittances, for dues and contributions, to the National Association of Audubon Societies, 1974 Broadway, New York City.
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Any person, club, school or company in sympathy with the objects of this Association may become a member of it, and all are welcome.

Classes of Membership in the National Association of Audubon Societies for the Protection of Wild Birds and Animals:

\$5 annually pays for a Sustaining Membership
\$100 paid at one time constitutes a Life Membership
\$1,000 constitutes a person a Patron
\$5,000 constitutes a person a Founder
\$25,000 constitutes a person a Benefactor

FORM OF BEQUEST:—I do hereby give and bequeath to the National Association of Audubon Societies for the Protection of Wild Birds and Animals (Incorporated), of the City of New York

NOTICE OF ANNUAL MEETING

The annual meeting of the National Association of Audubon Societies for the Protection of Wild Birds and Animals, will be held in the American Museum of Natural History, New York City, on Tuesday, October 31, 1922, beginning at 10 o'clock A. M.

There will come before the members at this time the reports of the President and Treasurer. Verbal reports will be made by various Field Agents and delegates from affiliated organizations.

The selection of two directors also will be considered, as the terms of Dr. Frank M. Chapman and William P. Wharton expire at that time.

The annual meeting is always a source of

interest and inspiration to those who attend, as the exchange of ideas and experiences among those engaged in the same line of endeavor in widely separated fields is always stimulating to the participants. It is to be hoped that as many members as possible will plan to be present on this occasion. All others interested in the purposes of the Association are welcome.

On the evening of Monday, October 30, in the large lecture hall of the American Museum of Natural History, there will be held a public gathering at which various speakers will appear. Slides and moving pictures will be presented. This public meeting usually attracts a large audience.

FINLEY COMING EAST

There are many who will learn with pleasure that William L. Finley, of Jennings Lodge, Oregon, is coming east again this winter on a lecture tour. He plans to leave Oregon about December 1, and to return in March or April.

The names of William L. and Irene Finley are inseparably associated with the presentation of many of the most attractive

moving picture films of wild life that have ever been taken in this country. As lecturer before the National Geographic Society, National Association of Audubon Societies, Columbia University, and numerous Audubon Societies, bird clubs, sportsmen's organizations, and colleges throughout the East, he is well known to many hundreds of most discriminating audiences. He is now making

lecture appointments. Those who desire to obtain his services may communicate with Mr. Finley at Jennings Lodge, Oregon, before December 1, 1922, or write directly to

the office of the National Association of Audubon Societies, 1974 Broadway, New York City, where he will make his headquarters while in the East.

ENFORCING GAME LAWS IN MAINE

Some weeks ago Mr. and Mrs. Carl A. Sutter, of Maine, decided to answer the back-to-nature call by going into the woods and seeing if a living could be wrested from Nature in the old cave man manner. Later newspaper reports told of the wonderful time they were having and remarked that partridges and venison were to be found before their camp. A member of this Association reading this press account, wrote to ask whether, if it were true, these people should be allowed to thus violate with impunity the game laws of the State of Maine. The Department of Inland Fisheries and Game, of Augusta, was immediately communicated with and under date of August 12, 1922, Myrtle A. Hodgson, Chief Clerk of the Department, reported as follows:

"As soon as the Department learned of the alleged violation of our inland fish and game laws by these parties, two of the most experienced officers and woodsmen in the State were detailed to investigate their activities and take such action as the law required, these wardens being Howard Wood Patten, Chief Warden of the Northern Penobscot and Southern Aroostook Districts, and Fred E. Jorgensen, of Masardis, Chief Warden of the Central Aroostook District. As the result of their investigations,

prosecution was instituted against the Sutters as follows:

"On June 9, 1922, before the Houlton Municipal Court, Carl A. and Margaret L. Sutter, of Brockton, Massachusetts, were fined \$25 and costs each, for unlawful hunting without a license. The costs amounted to \$15.95.

"On the same date, the same parties were prosecuted before the same court for fishing without a license, each being fined \$10 and costs, the costs amounting to \$16.17.

"Same day, in the same court, same parties were prosecuted for having partridges in possession in closed time, each being fined \$10 and costs, the costs being \$16.17.

"The same day, before the same Court, same parties were prosecuted for camping and kindling fires in an unorganized township without being in charge of a registered guide, as is required by law; both pleaded guilty and they were fined \$40 each and costs; the costs amounted to \$16.97.

"The same day, before the same Court, the same parties were prosecuted for hunting and killing deer in closed season; fine of \$50 each was imposed, and paid, and costs taxed at \$16.17.

"From the above extract from our records, I think you will agree with me that our wardens took prompt and effective action."

SAVING BIRDS AT LIGHTHOUSES

It is generally known that many lighthouses, erected as beacons of warning to human navigators, on the other hand serve as lures of destruction to migratory birds. For many years bird-lovers sought to devise some means to prevent this great loss of life. It is to a Dutchman, Dr. Jac. P. Thijsse, that credit must be given for discovering a practical method of dealing with this situation.

It was at the home of Dr. A. Burdet, in

Overveen, Holland, that on June 4, 1922, the writer had the pleasure of meeting Dr. Thijsse and learning at first hand of his efforts to save birds, which on foggy nights dash themselves against lighthouses or flutter about the lanterns until exhausted. Dr. Thijsse made his successful experiment on the tower of Brandaris Light, situated on the Island of Terschelling, lying between the Zuider Zee and the North Sea. It stands in the center of a strongly maintained migra-

tory route of birds leading south from the Scandinavian Peninsula and northwestern Russia and Germany.

As long as this light threw a steady beam, the destruction of birds was not great, but when it was modernized and a high-power flash that can be seen at a distance of 100

aided by Dr. Burdet, hit upon a plan of erecting a series of parallel iron bars around and just below the light. Here bewildered birds perch and find safety until they can again get their bearings or daylight comes to their rescue. So commodious are these perches that they can give a total seating



DR. JAC. THIJSSE, OF HOLLAND

Dr. Thijsse invented the first practical device for saving the lives of bewildered birds at lighthouses

Photographed by T. Gilbert Pearson

miles was installed the destruction of bird-life became tremendous. The tower is about 200 feet high and stands in the midst of a village well populated with cats, dogs, and bird-eating human inhabitants, who gathered rich harvests of exhausted birds falling to the pavements on foggy nights.

After various experiments, Dr. Thijsse,

capacity of 30,000 birds. Dr. Burdet estimates that he actually saw in the neighborhood of 22,000 birds roosting here at one time. It is interesting further to note that Owls and even Falcons frequently come here at night and catch the birds, but by means of the perches the loss of life has been reduced to a minimum. Among the species



BRANDARIS LIGHTHOUSE

On the Island of Terschelling, north of the Zuider Zee, Holland, where the first system of perches was erected for birds attracted to the light
Photographed by Dr. A. Burdet



A DETAIL SHOWING PORTION OF BIRD PERCHES ERECTED NEAR THE TOP OF
BRANDARIS LIGHTHOUSE

Photographed by Dr. A. Burdet

attracted to the tower are innumerable Starlings, Larks, Thrushes, Gulls, Terns and Oystercatchers. In addition there is a great variety of other land and shore-bird species.

The perches or 'ladders' are erected twice a year and remain up for two months during the period of migration.

Similar Efforts in England

It is but natural that the wonderful success attending this experiment should attract the attention of the officers of the Royal Society for the Protection of Birds just across the English Channel. At the annual meeting of that Society held in London on March 6, 1913, Lord Curzon headed a special fund with a gift of £25 for the purpose of equipping some of the lighthouses in England. Many other members of the Society at once contributed. The *London Times* took up the campaign and materially aided in the collection of funds which soon amounted to the very useful sum of £500.

In the annual report of the Royal Society for 1921 there appears this paragraph:

Bird-rests at Lighthouses

"The perches at the four lighthouses equipped by the Society were erected as usual for the spring and autumn migrations,

and abundant evidence was again given of their value to bewildered little migrants. The lighthouses at present furnished with the rests are the Caskets, St. Catharine's, Spurn Point, and South Bishop. The Committee will be glad to add Bardsey Lighthouse (Carnarvon), when funds permit. This year the apparatus at Spurn has had to be renewed at a cost of £70, owing to the destruction wrought by heavy storms."

In America perches for birds have never been erected on any of the lighthouses, but it is a question that has frequently been discussed. Some months ago the National Association of Audubon Societies took up the matter with the Lighthouse Board in Washington. Inquiry was made as to whether the Government would look with favor on the idea of the National Association equipping one lighthouse with perches as an experiment. In reply we were advised that the Biological Survey of the Department of Agriculture is at the present time engaged in making a thorough investigation of the extent of the destruction of birds by American lighthouses. It will probably be a year before the Survey will make its final report, after which we shall be in position to know what further consideration of the subject is needed.

GUARDING THE GREAT TEXAS HERONRY

The great colony of Reddish Egrets discovered in Laguna Madre, Texas, in 1920, was taken under the care of the Association the past season. The work of guarding these extremely rare and interesting birds was entrusted to R. D. Camp, of Brownsville. It may be recalled that the Texas Legislature at its last session enacted a law authorizing the Commissioner of Public Lands to lease to our Association, without cost for a period of fifty years, various islands in these waters, whose vast bird-life had been brought to the attention of the public by our field work in that territory. While the necessary legal arrangements for taking title of the Islands have not yet been completed, we felt the necessity of immediately beginning the work of protecting the birds.

It was the southern group of these Laguna Madre Islands that Mr. Camp undertook to protect. These consist of Green Island, Moro Island, and the Three Islands. His report of the season's work is of more than usual interest, and this means is taken to present it to the members of the Association.

"I arrived at Green Island on May 20, in a sailboat, towing the houseboat and skiff, having made the trip from Point Isabel in seven and one-half hours. The houseboat was an old affair with a cabin 10 by 20 feet built on two small barges. I rented it for the season for \$15. The deal proved very satisfactory as it gave me a dry and semi-comfortable place to camp, away from the mosquitoes which were troublesome at times.

"During my stay in the Laguna a number



A YOUNG WHOOPING CRANE

Owing to continuous persecution by gunners, the Whooping Crane has become one of the rarest birds in North America. This photograph was made by Miss E. Margaret Estlin, at Kerrobert, Saskatchewan, in the summer of 1913. Adult birds were seen by her in this neighborhood as late as the autumn of 1921

of naturalists visited me for study. Prof. Alvin Cahn and two assistants came on June 3, and stayed about ten days, during which they studied the life habits of Egrets and Herons, and took about 250 photographs of them. Mr. and Mrs. G. Finlay Simmons, the former being an instructor in biology at the University of Texas at Austin, came about the middle of June, and worked among the birds and fish of the surrounding district for two weeks. Prof. B. C. Tharp, botanist

by camping on land, which camp would have to be built during the heat of nesting, I used the houseboat. I am convinced the proper way to handle the Island is to put up a small permanent wooden shack, say 12 by 16 feet, with a porch across one side, building this in the fall or winter. Such a building could be used for a great many years and would not, in my judgment, bother the birds. The first cost of a structure of this sort should not be over \$250. It would be the base of



ONE OF THE SIGNS RECENTLY ERECTED ON GREEN ISLAND, TEXAS, BY R. D. CAMP REPRESENTING THE NATIONAL ASSOCIATION OF AUDUBON SOCIETIES

of the University of Texas, spent six days, from June 23, studying and collecting the flora of Green Island. Mr. Jack Specht, field man for the Fox Film Service, arrived on June 27 and took about 550 feet of film for educational screen work. Also a number of local fishermen parties visited the camp for a few hours each. On only two occasions did I have to correct trespassers who attempted to land on the Island with guns; each time these parties waded over from Moro Island.

"Conditions on Green Island, the territory principally watched, were far more satisfactory this year than formerly. Due to my fear of the possibility of disturbing the birds

action for all the territory from Point Isabell to Topo Bay.

The Grackle Menace

"By far the greatest menace to the rookery at Green Island is the destroying of the fresh eggs of the Herons and Egrets by the Great-tailed Grackles. This destruction, however, was greatly overcome this year, but not to the extent possible, as I clearly determined by conditions observed while on the ground. Last year, by a careful census and estimate, there were over 5,000 shells of devoured fresh eggs, mostly Reddish Egret and Louisiana Heron, on the ground at one time. This was so greatly reduced the present

year that I estimate not over 300 eggs destroyed. Another year, by proper steps being taken, I am confident the trouble can be entirely eliminated.

"My recommendations for combating the Grackles are, after this year's experience, to be on the ground between April 20 to 25 and start a systematic campaign of destroying the nests of the Grackles, and in this way discourage their using the Island for breeding. I find that practically all the eggs destroyed by Grackles are fresh, and are eaten during the period of incubation of the Grackle, as after the young are out, the parent birds bring food from the mainland. My campaign of eradication this year consisted of traps, poison, and shooting, the latter finally being the only successful means, as, in a very short time, the Grackles evaded both traps and poison. In some cases I found the Grackles destroying and eating their own eggs. There was no further necessity for watching the Grackles after June 30 this year, and if the case is properly handled by early action hereafter, I think the Island can be cleaned up by the middle of May.

"The increase in bird-life on Green Island was noticeable, particularly that of the Ward's Heron and Snowy Egret; there were also more Reddish Egrets in evidence this year. Only a very few cases of natural death of young birds were seen, and in this respect the conditions differed from those of previous years. But once did a coyote visit the Island this season, and then to stay only a day.

"High-water conditions about the Laguna this year caused the destruction of many bird colonies. The Rio Grande was on a rampage and vast quantities of fresh water came into the Laguna via the Arroyo Colorado, causing a rise of over two feet, which submerged practically all the reefs and flats on which the Terns and Gulls were nesting. At one time there were no bars in sight at either end of Green Island.

The Bird Population

"Birds breeding on Green Island during the season of 1922 had nests in about the number given below:

	Nests
Reddish Egret, approximately . .	1800
Louisiana Heron, approximately . .	1200

Ward's Heron, approximately	300
Black-crowned Night Heron, approximately	150
Snowy Egret, approximately	20
Least Tern, approximately	60
Black Skimmer	1
Black Vulture	1
Texas Woodpecker	3
Curved-billed Thrasher	4
Grey-tailed Cardinal	4
Golden-fronted Woodpecker	1

In addition to the above there were, perhaps, 300 nests of the Great-tailed Grackle, a majority of which were destroyed or the birds shot. I estimated 50 of the white phase of the Reddish Egrets on Green Island this season, also saw at one time 17 of the large White Egrets, but I did not find them breeding. I did, however, see a number of nests of the Reddish Egrets with downy young in the white phase.

Many more of the Reddish Egrets were nesting on the ground this year than formerly—there were hundreds of them. Large flocks of Roseate Spoonbills visited the section at various times, once 177 being counted, and there were also many White Pelicans.

"On Moro Island there were about 50 nests of Least Terns, and possibly 12 of the Black Skimmer on the bar at the north end of the Island. Most of these were destroyed by high water. Also one nest each of Ward's Heron, Black-crowned Night Heron, and Black Vulture were found on the high part of the Island. On a bar just north of Three Islands I found a colony of Black Skimmers with sixty-odd nests, with eggs and many ready for eggs, but the entire colony was submerged and destroyed by high water later. Deer Island, on which a large colony of Gulls and Terns nested last year, was entirely under water and I rode over it in my boat.

"I visited a great deal of the surrounding country and Islands, as far north as Topo Bay, but was unable to find any other rookeries or to find any Spoonbills or Pelicans breeding. Large flocks of Sooty Terns were noticed, and in one case there were at least 17 young birds, but I was unable to find whether they were breeding in the Laguna.

Respectfully submitted,

(Signed) R. D. CAMP."



1. BALTIMORE ORIOLE, ADULT MALE

2. BALTIMORE ORIOLE, ADULT FEMALE

3. BALTIMORE ORIOLE, IMMATURE FEMALE

Bird-Lore

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No. 6

The Trailer-Blind de Luxe

By GUY A. BAILEY

With Photographs by the Author

ONCE upon a time I sat on a cake of ice for hours with the thermometer hovering around zero waiting for Ducks to come in near an improvised blind of canvas to feed upon some corn that had been dropped in the water near the shore. These Ducks were Redheads, Canvasbacks and Scaups. They sat out in the lake apparently afraid of the blind. A few of the bravest ones would leave the raft and swim toward the blind, then, becoming suspicious, they would return to their more timid companions. A few minutes later some more could be seen working gradually toward the blind. After three or four hours of watchful waiting, the whole raft moved in and began to pitch and and dive. Once they tasted the corn they seemed to lose all sense of fear. It



TRAILER-BLIND IN POSITION

was now an easy matter to photograph them and they paid little attention to the click of the shutters or to the noise attending the changing of plate-holders. Dozens of exposures were made, until the whole supply was used up.

My companion and leader on this expedition was Prof. Arthur A. Allen, Editor of the School Department of BIRD-LORE. The place was the west shore of Cayuga Lake, about a mile from the inlet. He had apparently become hardened to the benumbing effect of a cake of ice on a zero day, but I found it difficult to adapt myself comfortably to this kind of a cushion. It was not so much the cold in itself as it was the trying to walk loaded down with cameras



A HEN AND TWO COCK PHEASANTS

and plate-holders after my legs had become paralyzed. So I might say that the idea of the Trailer-Blind de Luxe had its inception while I was sitting on Allen's icy cushion.

The Trailer-Blind de Luxe is a small house on wheels so constructed that it can be drawn as a trailer behind a car or wagon. It is 7 feet long, 4 feet wide and 7 feet tall under the cupola. It is provided with a writing-desk, a collapsible bed, an oil-stove, and a presto-lite tank with a suitable burner. There is linoleum on the floor, a limited library, refreshments, and a thermos bottle of coffee when in operation.

This blind has usually been left for a season in various favorable places for bird-photography. The first station was near a ravine where the Ring-necked Pheasants had been regularly fed during the severe weather for several years. In front of the blind a pile of corn was left at a convenient distance for photographing the birds. At the same time a suet-basket was hung up so that other birds of the region could be studied and photographed. For six weeks the feeding-station was kept up with no attempt at photographing the birds.

Under date of February 11, 1917, I find in my notebook these notes: "Came down to the blind about noon. A few Pheasants flew out while I was putting out food. A Red-bellied Woodpecker was in the woods nearby. White-breasted Nuthatches and Chickadees came readily and fed on suet. Song Sparrows and Tree Sparrows were about. Made five exposures of Song Sparrow and four exposures of the Tree Sparrow about 2 P.M. Two cock Pheasants and two hen Pheasants came about 2.15—made one exposure. Only one male came later, about 4 P.M. Three others went up through the ravine and did not



TWO HENS AND A COCK PHEASANT AND A CROW

come toward the feeding place. They remained under brush-piles across the ravine and did not seem to be hungry. The wind and cold weather seemed to keep them away. The Red-bellied Woodpecker came again about 3.45. The Tree Sparrow and Song Sparrow came to the feeding-station at two different times during the afternoon. Nuthatches and Chickadees also came. As I went to the trolley station, I saw a Northern Shrike with a bird at the end of the ravine. Hope to get the Shrike yet."

On March 29 of the same year, the blind was moved to North Bow Pond. This pond is an old oxbow loop of the Genesee River and is filled during the flood season. It is well protected from strong winds, and, being in a deep bend of the main river, is not easily approached. For years it has been a favorite



"A RED-BELLIED WOODPECKER SAMPLED
THE SUET"

resting-place of the Canada Geese on their northern flight. The blind was moved to the southern edge of this pond and corn poured out on the shore and in the water directly in front of the blind. Within three days the Geese became accustomed to the blind and fed in front of it or rested by the side of it undisturbed.

Under date of April 14, 1917, I find these notes: "Entered the blind at 1 A.M. Geese came in about 6 A.M. Too dark for pictures until 7. Made sixty exposures up until 9 o'clock. Used 5 x 7 camera, 4 x 5 and the stereo."

On April 16 I made these notes: "Came down after dinner and flushed the Geese and Ducks. Geese raised a little and alighted in the river at the north. This is the fourth time in succession they have done this. They are not much disturbed by the car. Put out corn and buckwheat and set up three cameras as follows: stereo, 4 x 5 front combination and 11-inch lens on a 4 x 5 camera. Two Mallards came in at the east end of the pond about 1.45. Ducks to the



"THERE WERE SEVENTY-FIVE GESE IN THE POND"

number of nine came before 2.30. At 2.30, thirty Geese came, followed in ten minutes by a dozen more."

Under date of April 22, 1917, I find these notes: "Came to the blind about 11 o'clock A.M. There were about seventy-five Geese on the pond and one Blue-bill. Geese flew up and alighted in the river farther north than usual. They arose before I reached the blind and flew over the pond and alighted north of the road about one-half mile from the blind. No pictures today."

On this occasion I fell asleep shortly after I entered the blind and was awakened by the bellowing of the steers that had just been turned out in the pasture. As they came nearer and I could hear them coughing and even breathing, they discovered that the sharp corners of the blind were well fitted to alleviate their itching sides and one after another they came up to the blind and rubbed their heavy bodies against these corners. The blind was elevated about a foot and one-half on four rather slender posts too insecurely attached to endure such rough treatment. Uncertain of the whereabouts of the Geese, I hesitated to make any effort to drive away the steers, and so I lay in the bed waiting for the dawn and hoping that all the itching sides could be relieved without the blind being tipped into the pond. While I was waiting I fell asleep but was awakened by the welcome sound of the Geese as they circled the pond, and I saw them close their wings and strike the water while the steers were well off to the further side of the field.



"WITHIN THREE DAYS THE GEESE BECAME ACCUSTOMED TO THE BLIND AND FED IN FRONT OF IT"

The Brown-headed Nuthatch

By FRANK FORREST GANDER, Wichita, Kansas

With Photographs by the Author

ON THE morning of March 21, I stepped ashore from a rowboat on the bank of High Bluff Creek in Franklin County, Florida. My purpose was a ten-days' outing in the wilderness, and I was looking for a place to pitch my tent. A palmetto ridge margins the creek on each side, and it was on the right-hand ridge, about a half mile or so down stream from where the creek emerges from the big swamp, that I made the landing. As I walked out through the grass and palmettos I passed near a fire-blackened stump some eight feet or so tall, and noticing two small openings near the top, I rapped smartly on the side to see if perchance I had discovered the home of a flying squirrel.

To my surprise, a small bird darted out and disappeared among the surrounding pines. So unexpected had been its appearance and so swift its flight

that it was gone before identification was possible, so I turned my attention to the hole which it had quitted. This opening was 5 feet and 9 inches above the ground and was $\frac{7}{8}$ inch across by 4 inches long. Being unable to reach the bottom with my finger, I thrust a pine straw in and found it to be $4\frac{1}{2}$ inches deep, and by the same method discovered there were eggs in the nest but could not ascertain the number.

As it seemed an excellent opportunity to secure some bird photographs, I pitched my tent nearby, the while I kept one eye open for my neighbor in the stump. Soon she returned, and as she lit against the stump, head downward, I needed nothing further to tell me I had happened upon a Nuthatch nest, and my field glasses disclosed the brown cap which completed the identification. She kept up a continual twittering and fidgeting, passing back and forth over the hard, smooth surface of the stump, and when she was finally satisfied that it was safe for her to venture inside, she entered head first from above the opening.



"SHE LIT HEAD DOWNWARD"

Thinking it best to let the birds become accustomed to me before I attempted to photograph them, I was content for several days to observe them from a little distance. The female was a very steady little housewife and brooded quite faithfully, and her mate was devoted to her, frequently feeding her on the nest. He would appear in a nearby pine tree, twittering and calling until



"A SMALL BIRD DARTED OUT"

she came to the entrance of their home, when he would fly to her with the morsel of food he carried, or, at times, as if my presence disconcerted him, he would hide his offering behind a loose piece of bark and the little female would fly to the place, and when she had eaten the tidbit, they would both fly away among the pines. Occasionally the male would hide the food while his mate was not watching him, and then she would have to search for it, and if, after a time, she was not successful she would abandon the hunt and fly away for a

little recreation or perhaps to find something for herself. When, in a minute or two, they returned, the female would go on the nest and the male would take the hidden food for himself.

I rigged up one of my oars as a scaffold for my camera and on the fifth day I decided to try for some pictures. As the opening was on the north side of the stump, I planned to make the exposures in the early morning when a little sunlight filtered through the needles of the pines and played upon the hole. By the time I had my camera focused and a thread attached for operating the shutter, small clouds were scurrying across the sky and the light was very uncertain. After a short wait the female returned to the stump but was frightened and flew away, but came again in a minute and I made the exposure which shows her near the nest-hole, moving head first down the stump. I waited until she went on her nest and then stole up to wind another film into position, but the slight noise of my approach frightened her and she came off with a rush. On her return I attempted to snap her as she entered, but so quick were her movements that she was half way in the hole before the shutter clicked, and the resulting picture was a puzzle to everyone. I was eager to catch the male feeding her but he would not come near the camera, so when I had an opportunity to snap her coming out, I pulled the thread and got the best picture of the three. I waited patiently in hopes of getting the two together, but the clouds grew thicker and I was forced to give up for the day. I felt sure of success on some other day, but for all the rest of the time I was encamped the sun was in hiding and I did not get the picture I wanted most.

On the last day in camp I removed a section of the outer wall of the stump and inspected the nest. The eggs had hatched two days before and the five babies were still very tiny. The hollow was quite roomy at the bottom, and all cracks and holes had been stuffed with fine bark. The nest was made of fine bark and lined with the wings of the pine seeds. Two other openings in the stump were evidently previous attempts at home-building but for some reason had been abandoned. Without doubt the occupied hole was excavated by the birds themselves as the work was fresh and was clearly the work of a bird's beak. Before I left I replaced the chip I had removed and fastened it firmly in place.

A Prince of the House of Eagles

By ETTA S. WILSON

With Photographs by Mrs. W. A. Craker

IT IS the privilege of Mr. and Mrs. W. A. Craker, of Omena, Mich., to possess an Eagle for a pet; and a most delightful pet is this bird, knowing his friends, enjoying their society, and furnishing them with endless pleasure and amusement by his capers and pranks, his dignified poses and occasional outbursts of anger.

In July, 1917, accompanied by an Indian guide named Mc-giz-ze-was (Eagle) while on a camping trip in one of the lake regions of Michigan, Mr. and Mrs. Craker discovered a large, dark-colored bird floundering around apparently unable to extricate himself from the entangling branches of a thick growth of young evergreens. Heavy of body, weak of wing, and wholly inexpert, the bird, making a mighty effort, would rise almost to the top of the evergreens, only to fall back again into the meshes of hemlock and cedar. Finally, becoming exhausted, the bird was easily caught, when, to their great delight, they saw that it was a young Bald Eagle.

The bird measured six feet six inches from tip to tip of wings; its eyes and beak were dark and its plumage dark brown, somewhat like that of a Golden Eagle in color. He was a good fighter.



"WHEN THREE YEARS OLD HE WAS STILL BROWN"



"THE FOURTH YEAR THE FEATHERS OF THE HEAD, NECK AND TAIL CAME IN WHITE"

Arriving home permission was secured from the State Game Warden to keep the bird and every arrangement was made for his comfort and safety. A large park was set aside for his exclusive use in which are rocks and old stumps. A roomy, warm shelter was built for his use in cold weather, but he seems to prefer the open the greater part of the year. He delights in summer storms and at such times will mount the highest rock where he will clap his big wings, jump up and down and scream in an ecstasy of joy, and the fiercer the thunder, the stronger the wind and the heavier the downpour, the more he enjoys it. He was named "Me-giz-ze-was" in honor of the Indian who found him.

His food consists of squirrels, rabbits, rats, fish, and an occasional chicken; in fact, he eats any kind of meat but it must be strictly fresh as he will not touch anything that is tainted. He is very keen-eyed and nothing escapes his notice. He is devoted to Mr. Craker and when he sees him coming he flies to meet him, uttering pleasant little sounds of greeting and showing his delight in many gentle motions quite at variance with the usually accepted idea of a bird of prey. He will take food from Mr. Craker's hand; in fact, he is not afraid of anyone but he must be treated with respect or he develops a whirlwind of anger and vents it upon the one who has been lacking in courtesy. He particularly resents having a finger pointed at him, and will instantly hurl himself at the offender in a wild swoop through the air. Landing on the ground, he follows up the attack by running after his victim in a series of high jumps, wings flapping, beak open, uttering all the while the most horrifying screams. Strong and agile, armed with sharp beak and talons, he can put the bravest man to flight. He has a special hatred for cats and never permits one of the animals to come near him. Dogs and chickens he regards with unconcern.

Me-giz-ze-was has molted every year since he was captured. The first two years his plumage remained in the dark, and when three years old he was still brown, though showing a grayish color under the wings, but at the next molting the feathers of his head, neck, and tail came in perfectly white while the color of his beak and eyes underwent a change, becoming lighter. Each time that he had molted his primaries, secondaries, and tail feathers have been carefully saved and from them a beautiful chief's war bonnet has been made which is now in the possession of an Indian of 101 Ranch fame.

Once Me-giz-ze-was ran—or rather flew—away. The Crakers never expected to see him again but the Indians of the vicinity said, "Oh, yes, he'll come back when he has seen the world," and sure enough one morning in April Me-giz-ze-was was discovered in the top of a tall tree near the house, looking somewhat disheveled and weary. He allowed himself to be captured and put back in his park, and after a good meal he perked up, dressed his feathers, and seemed to show great satisfaction at again having all the comforts of home.

The nest in which Me-giz-ze-was was undoubtedly hatched is in the top of an immense dead tree 4 feet in diameter, standing in the midst of a swamp



"SCREAM IN AN ECSTASY OF JOY"

that is so wet that no near approach can be made. It is enormous in size but photographs having to be made from so great a distance fail to convey its true dimensions.

Mr. and Mrs. Craker visit the location every year and have seen the old birds repairing the nest and later have seen them brooding the eggs and feeding the young. After incubation begins, attention is constant, for one parent does not leave the nest until the other arrives to take its place. The home-coming of the Eagle is a wonderful sight. At first a mere speck in the distance, he flies in a direct line toward the home tree and on arrival soars around overhead, uttering great screams until the sitting bird leaves, when he descends to the nest and settles down softly upon the eggs which he moves about by weaving slowly from side to side.

Fearful that this pair of Eagles may be disturbed or destroyed, Mr. and Mrs. Craker will not disclose to anyone the exact location of their aerie. Nor will they release Me-giz-ze-was for fear of the hunter. Having experienced nothing but kindness from humanity, Me-giz-ze-was is afraid of no one and would be an easy mark for the gunman.

Valley Quail and Road-Runners

By ERNEST MCGAFFEY, Hollywood, Calif.

PAYT-EIGHT-O, *payt-eight-o, payt-eight-o*. It is the call of the Valley Quail. I slip to my window in the faint dawning light that is creeping over the Hollywood hills and peer down to the street below. Across the street is a vacant lot which was lately adorned with a high growth of weeds. Some philanthropist cut them all down, and the seeds have strown the ground thick with succulent food for the Valley Quail. *Payt-eight-o, payt-eight-o*. There the birds are, fully one hundred of them, some of them with heads bent down among the shorn cover of weeds, others scurrying across the street with that level, swift movement of the Quail afoot. The top-knots on their brown heads bob back and forth as they pick and forage among the short stems of the severed grass and weeds, all the while keeping up a sharp watch for any intruders.

Here comes a late-comer. He rises at the edge of the sidewalk and clears the street a-wing, lighting with a little flurry among the other Quail, and causing the same sort of fidgety attention that a new lady coming into a sewing-circle will produce. But he settles down to picking industriously and presently the entire conclave is huddled together closely, with one or two stray birds apart from the rest. These blasé members of the party, seem to be oblivious to the tasteful weed-seeds and sometimes they ruffle their feathers in a sort of 'plumagy' yawn.

But softly. Hush! Slinking cautiously through the grass of an adjoining yard comes a stealthy cat, intent on the feeding bevy on the vacant lot. He

combs the earth with furtive claws, every muscle in his body quivering with expectancy. His tail waves ever so little, his green eyes burn with the ardor of the chase. Nearer he crawls and nearer, he stops, crouches, he is almost close enough to spring, when one of the outside ring of Quail emits a shrill warning of *keet keet*, and then *zizz-uzz*, the entire bevy have scattered to the foothill cover back of my house, and not a feather is left for grimalkin. The Valley Quail of southern California is a little smaller than the Bob-white of the eastern states, a trifle swifter on the wing, and a great deal more cunning in his methods of evading his enemies. When a bevy of Valley Quail are flushed by the hunters, they often scatter in every direction, not holding their formation nearly so close as the Bob-whites. When they alight, instead of



VALLEY QUAIL FEEDING IN THE SNOW

running a short distance and squatting, as the Bob-white does, they run sometimes for a half mile before hiding.

When they go to roost, instead of squatting in a circle with their heads out, as does Bob-white, making them an easy prey to prowling raccoons, foxes, skunks, etc., they frequently roost in the trees, deep in the leaves, so as to hide from the Owls, and they often dive into the densest recesses of thick bunches of cactus, where they are safe from all enemies. They usually fly instantly to the most impenetrable cover in the vicinity when alarmed, and here in southern California much of the brush cannot be penetrated with anything short of a spear. And even when they alight in this thorny chaparral they keep on running, and if you send in a dog to rout them out, they are three or four hundred yards away before the dog has burrowed in a foot into the closely interwoven thicket.

In Hollywood the Valley Quail are protected from everything except cats,

and the result is they thrive and wax apace. Bevvies of from 40 to 150 birds are not at all uncommon, and they descend from the foothills, which are crowned with thick cover of sage-brush and thickets, and come to the very door-steps and back yards of the residents. As there is absolutely no winter weather here, and not a flake of snow, and only a little rain annually, they are never killed off by snowdrifts and starvation. Further north in southern California, where the snow comes occasionally in some parts of the country, they feed the birds when the ground is snow-covered, and it is a pretty and interesting sight to watch a bevy of Quail picking up seeds or bread-crumbs scattered about on the white tablecloth.

Driving about the southern counties, over roads sign-posted and guarded in every direction by the directing and warning signs of the Automobile Club of Southern California, you will sometimes see a swift-moving grey and black bird, about as large as an Upland Plover, dart quickly from some neighboring clump of thickety chaparral, stop for an instant on the roadway, and then go briskly across and disappear in the adjoining cover. Somehow I never see a Road-runner that I do not think of the "pony-riders," the mail-carriers of the early sixties. Alert, rapidly moving, semi-military figures, the Road-runners are almost invariably on the move.

Their movements are incredibly swift and precise, and their alignment against a background of grey sage-brush and greyer rocks seems almost shadow-like, taken in connection with their own uniform of greyish black. I have never seen two Road-runners together, nor two in close proximity to one another in the same stretch of country. They appear to be as solitary as Loons. But to the stranger in the land, the sudden appearance of this grotesque bird is as quaint and unique as the apparition of Poe's "Raven perched upon the bust of Pallas." He is one of the most disappearing birds in the entire roster of birddom.

"Here he comes and there he goes" does not quite do justice to his trick of entrance and exit. He will be in the middle of the highway before you have noticed him emerge from one side of the road, and he will be on the other side of the trail, and out of sight before you have fairly visualized his perky top-knot and long tail. Maybe the Road-runner sometimes deigns to use his wings, but I have never yet seen one in the air. As a sprinter he has few rivals.

The Road-runner, or 'Chaparral Cock,' as he is locally called, partakes of the outward appearance of a Pheasant, a Chicken, and a Jay. His elongated beak is a characteristic of his own. His preposterously long tail, often elevated, is like a Pheasant's for sheer length. The lower portion of the breast reminds one of certain breeds of poultry. The saucy and suspicious gleam of the eyes is something similar to the Blue Jay of the eastern states. But all in all, there is no bird quite like him.

Bird-Lore's Twenty-third Christmas Bird Census

BIRD-LORE'S Annual Bird Census will be taken as usual on Christmas Day, or as near that date as circumstances will permit; *in no case should it be earlier than December 23 or later than the 27th*—in the Rocky Mountains and westward, December 20 to 25. Without wishing to appear ungrateful to those contributors who have assisted in making the Census so remarkably successful, lack of space compels us to ask each census taker to send only *one* census. Furthermore, much as we should like to print all the records sent, the number received has grown so large that we shall have to exclude those that do not appear to give a fair representation of the winter bird-life of the locality in which they were made. Lists of the comparatively few species that come to feeding-stations and those seen on walks of but an hour or two are usually very far from representative. A census-walk should last *four hours at the very least, and an all-day one is far preferable*, as one can then cover more of the different types of country in his vicinity, and thus secure a list more indicative of the birds present. Each report must cover *one day only*, that all the censuses may be comparable.

Bird clubs taking part are requested to compile the various lists obtained by their members and send the result as one census, with a statement of the number of separate ones it embraces. It should be signed by all observers who have contributed to it. When two or more names are signed to a report, it should be stated whether the workers hunted together or separately. Only censuses that cover areas that are contiguous and with a total diameter not exceeding 15 miles should be combined into one census.

Each unusual record should be accompanied by a brief statement as to the identification. When such a record occurs in the combined list of parties that hunted separately, the names of those responsible for the record should be given. Reference to the February numbers of BIRD-LORE, 1921-22, will acquaint one with the nature of the report that we desire, but those to whom none of these issues is available may follow the form given below. The date is important, and the species should be given, *in the order of the A. O. U. 'Check-List'* (which is followed by most standard bird-books), with, as exactly as practicable, the number of *individuals* of each species recorded.

Yonkers, N. Y. (to Bronxville and Tuckhoe and back).—Dec. 25; 8 A.M. to 4.30 P.M. Clear; 5 in. of snow; wind west, light; temp. 38° at start, 42° at return. Eleven miles on foot. Observers together. Herring Gull, 75; Bob-white, 12 (one covey); (Sharp-shinned?) Hawk, 1; . . . Lapland Longspur 1. Total, 27 species, about 470 individuals. The Longspur was studied with 8-power glasses at 30 ft.; eye-ring, absence of head-stripes and other points noted.—JAMES GATES and JOHN RAND.

These records will be published in the February issue of BIRD-LORE, and it is *particularly requested* that they be sent to the Editor (at the *American Museum of Natural History, New York City*) by the *first possible mail*. *It will save the Editor much clerical labor if the model here given and the order of the A. O. U. 'Check-List' be closely followed.*—J. T. NICHOLS.

The Migration of North American Birds

SECOND SERIES

XX. BALTIMORE ORIOLE

Compiled by Harry C. Oberholser, Chiefly from Data in the Biological Survey

The **Baltimore Oriole** (*Icterus galbula*) is one of the best-known birds of the eastern United States, and a favorite alike with country and city bird-lover. Its whole range extends from southeastern and central southern Canada south through the eastern half of the United States to Central America and northern South America; and the species is as yet undivided into subspecies. It breeds north to Nova Scotia, Prince Edward Island, New Brunswick, southern Quebec, southern Ontario, central Saskatchewan, and central Alberta; west to central Alberta, eastern Montana, western South Dakota, eastern Colorado, northwestern Texas, and eastern Texas; south to southern Louisiana, central Alabama, and central Georgia; and east to central South Carolina, western North Carolina, eastern Virginia, and the Atlantic Coast north to Nova Scotia. In migration it moves southward over the remainder of the southeastern United States, including Florida. It winters from southern Mexico through Central America to Colombia. It is of casual occurrence in the Bermuda Islands; accidental at York Factory, Manitoba, and in Cuba.

SPRING MIGRATION

LOCALITY	Number of years' record	Average date of spring arrival	Earliest date of spring arrival
Long Island, Ala.	2	April 26	April 23, 1916
Kirkwood, Ga.	10	April 25	April 15, 1893
Raleigh, N. C.	3	April 29	April 26, 1890
Lynchburg, Va.	8	April 28	April 21, 1902
New Market, Va.	38	April 27	April 19, 1896
French Creek, W. Va.	5	April 26	April 21, 1889
Washington, D. C.	34	May 3	April 24, 1912
Mardelia Springs, Md.	13	April 27	April 17, 1896
Philadelphia, Pa.	20	May 5	April 23, 1791
Renovo, Pa.	25	May 5	April 30, 1903
Beaver, Pa.	15	April 27	April 19, 1889
Morristown, N. J.	19	May 3	April 23, 1890
Englewood, N. J.	16	May 6	May 1, 1908
New York, N. Y.	30	May 4	April 24, 1890
Ballston Spa, N. Y.	26	May 7	May 3, 1905
Plattsburgh, N. Y.	10	May 11	May 5, 1915
Geneva, N. Y.	11	May 3	April 29, 1910
Buffalo, N. Y.	11	May 5	April 28, 1914
Hartford, Conn.	28	May 6	April 28, 1908
Portland, Conn.	46	May 5	April 30, 1888
Providence, R. I.	23	May 8	May 1, 1904
Northampton, Mass.	13	May 7	May 3, 1916
Harvard, Mass.	5	May 3	April 22, 1910
Boston, Mass.	28	May 5	April 26, 1908
Bennington, Vt.	13	May 10	May 1, 1913
Charlotte, Vt.	15	May 11	May 7, 1895
St. Johnsbury, Vt.	26	May 10	April 21, 1896

SPRING MIGRATION, continued

LOCALITY	Number of years' record	Average date of spring arrival	Earliest date of spring arrival
Tilton, N. H.	6	May 11	May 9, 1915
Hanover, N. H.	12	May 9	May 6, 1895
Phillips, Maine.	13	May 13	May 8, 1905
Orono, Maine.	11	May 11	May 8, 1917
Montreal, Quebec.	19	May 11	May 5, 1895
New Orleans, La.	4	April 16	April 9, 1916
Rodney, Miss.	5	April 6	April 4, 1890
Helena, Ark.	30	April 10	April 5, 1893
Athens, Tenn.	8	April 17	April 8, 1908
Lexington, Ky.	6	April 25	April 21, 1906
St. Louis, Mo.	14	April 21	April 14, 1910
Concordia, Mo.	9	April 26	April 22, 1916
Olney, Ills.	5	April 18	April 15, 1911
Chicago, Ills.	30	April 30	April 25, 1916
Bloomington, Ind.	11	April 25	April 18, 1900
Richmond, Ind.	13	April 25	April 20, 1889
Waterloo, Ind.	19	April 27	April 21, 1896
Hamilton, Ohio.	7	April 25	April 17, 1896
Youngstown, Ohio.	13	April 28	April 25, 1913
Oberlin, Ohio.	24	April 26	April 14, 1905
Wauseon, Ohio.	14	April 26	April 21, 1896
Vicksburg, Mich.	14	May 1	April 25, 1908
Detroit, Mich.	15	May 2	April 25, 1899
London, Ontario.	12	May 3	April 28, 1915
Ottawa, Ontario.	31	May 10	May 3, 1899
Keokuk, Iowa.	20	April 27	April 23, 1902
Sioux City, Iowa.	16	May 6	May 2, 1905
Racine, Wis.	11	May 2	April 27, 1903
Madison, Wis.	24	May 4	April 26, 1894
Lanesboro, Minn.	10	May 4	May 1, 1887
Minneapolis, Minn.	28	May 7	April 26, 1889
Corpus Christi, Texas.	3	April 11	April 10, 1903
Brownsville, Texas.	3	April 20	April 15, 1911
Onaga, Kans.	28	April 30	April 24, 1908
Red Cloud, Nebr.	15	May 4	April 27, 1914
Vermilion, S. Dak.	4	May 6	May 3, 1913
Bathgate, N. Dak.	5	May 17	May 10, 1896
Aweme, Manitoba.	18	May 16	May 11, 1911
Indian Head, Sask.	11	May 19	May 12, 1906
Yuma, Colo.	3	May 23	May 22, 1906
Flagstaff, Alberta.	7	May 25	May 16, 1916

FALL MIGRATION

LOCALITY	Number of years' record	Average date of departure	Latest date of departure
Raleigh, N. C.	5	August 31	September 17, 1886
French Creek, W. Va.	4	August 26	August 30, 1890
Washington, D. C.	6	August 26	September 14, 1919
Berwyn, Pa.	13	August 31	September 14, 1915
Renovo, Pa.	17	August 31	September 21, 1899
Beaver, Pa.	10	August 30	September 7, 1889
Morristown, N. J.	15	September 4	September 22, 1914
Englewood, N. J.	3	August 29	September 2, 1908
New York, N. Y.	15	September 5	November 25, 1909
Ballston Spa, N. Y.	13	August 29	September 12, 1915

FALL MIGRATION, continued

LOCALITY	Number of years' record	Average date of departure	Latest date of departure
Geneva, N. Y.....	2	September 10	September 12, 1915
Hartford, Conn.....	16	September 21	September 30, 1905
Providence, R. I.....	15	August 24	September 13, 1897
Harvard, Mass.....	6	September 8	September 25, 1909
Boston, Mass.....	4	August 26	September 14, 1911
Tilton, N. H.....	7	September 5	September 29, 1908
Phillips, Maine.....	7	August 26	August 31, 1914
Montreal, Quebec.....	11	August 21	August 31, 1912
Athens, Tenn.....	7	September 12	September 29, 1909
Lexington, Ky.....	3	August 29	September 3, 1905
Concordia, Mo.....	8	September 1	September 6, 1912
Chicago, Ills.....	9	September 9	October 7, 1906
Waterloo, Ind.....	7	August 30	September 2, 1906
Oberlin, Ohio.....	6	September 1	September 21, 1906
Wauseon, Ohio.....	11	September 15	October 2, 1897
Vicksburg, Mich.....	10	August 30	September 24, 1902
Detroit, Mich.....	7	September 4	September 22, 1912
London, Ontario.....	3	September 4	September 8, 1900
Ottawa, Ontario.....	15	August 25	September 16, 1885
Keokuk, Iowa.....	11	September 2	September 10, 1901
Madison, Wis.....	10	August 24	September 5, 1914
Lanesboro, Minn.....	6	August 27	September 1, 1889
Onaga, Kans.....	25	September 4	September 18, 1908
Aweme, Manitoba.....	18	August 28	September 6, 1913

Notes on the Plumage of North American Birds

SIXTY-FIFTH PAPER

By FRANK M. CHAPMAN

(See Frontispiece)

Baltimore Oriole (*Icterus galbula*). Both male and female nestling Orioles, aptly called by Olive Thorne Miller the "cry-babies of the bird world," resemble the immature female (Fig. 3). At the postjuvenile molt the body feathers are exchanged for a new set, but the wing and tail feathers are retained. The somewhat downy looking feathers of the nestling plumage are replaced by stronger, firmer ones, but there is no essential difference in color between the juvenal, or nestling, plumage and the one (first winter) which follows it. The sexes still resemble each other, and Figure 3 of the frontispiece, therefore, represents the male in its first winter dress, as well as the female at this age and older.

The spring (prenuptial) molt occurs before the bird leaves its winter quarters in the tropics, and collections contain few specimens illustrating it. There is, however, a young male in the American Museum collected about seventy years ago near Panama, which is molting from first winter into first breeding plumage. New black feathers are appearing in the throat, and two black, olive-tipped feathers are half-grown in the center of the tail; new black, white-tipped wing-coverts are replacing the old brownish ones, and deeper orange feathers are

sprouting in the breast. Comparing this bird with others taken in May after their arrival in the North, it is evident that the first nuptial plumage is acquired by a nearly complete molt, only the larger wing feathers and some of their coverts, of the first winter plumage being retained. This plumage resembles that of the adult (Fig. 1) but the orange is paler, the wings resemble those of Figure 3, with more or less black and white in the wing-coverts, and the tail is like that of Figure 3, with two central black feathers. At the first post-nuptial (second fall) molt this plumage is wholly lost and replaced by that of the adult (Fig. 1). There are no further changes in color.

The molts of the female doubtless agree with those of the male. The first breeding plumage (Fig. 3) resembles the first winter plumage, and the black throat and blackish back (Fig. 2) are found only in fully adult birds.



A DRUMMING GROUSE

Photographed by J. H. McDonald, Guelph, Ontario, at a distance of six feet

Notes from Field and Study

Birds from a Breakfast Table

As a busy housewife, living in the heart of town, I have no time to linger under trees, or take a half day off to stretch out in some secluded nook, with a field-glass in one hand and a camera in the other. But the birds are my dear friends, and last November I conceived the idea of putting up a food-board near my breakfast-room window, where, at least once a day, I could observe the little feathered creatures.

The porch is open to the sky, and so is the food-board, a primitive arrangement of one long plank nailed to two supports, attached to the veranda railing. But the amount of information which I gleaned, showed me that any sort of feeding-place is good enough, providing the snow is brushed away from time to time.

I put out whole wheat bread crumbs, white bread, crackers, cracked wheat, bird-food which I bought from my grocer, and sunflower seeds. The latter remained longer on the board than the other food, so long, in fact, that I gave up placing any more out, until this spring.

Have I heard it mentioned that "English Sparrows are stupid?" Perhaps the adjective was used in a tone of contempt. At any rate, allow me to state that the ones I fed this past winter were the smartest little rascals I ever saw! They must have had some 'war-time' training or have been associated with Hoover! They ate all the whole wheat first, pushed or dropped the cracker crumbs off the board, and only took the white bread crumbs as a 'last resort!' They came in flocks of forty to fifty, and in ten minutes every crumb worth having would be gone.

I resigned myself to the probable fact that all the birds I should ever feed would be those Sparrows. But, wait! One evening in February, when every tree and twig was covered with a coating of ice, and I was sitting in the living-room reading, I heard a beautiful whistle, soft and clear. It sounded as if he were saying 'thank you' over and over. I

cautiously lifted a window-shade, but there was no sign of the visitor, yet the next morning my man-of-all-work reported that there was a big, fat red bird a-chewin' some dried grapes on the barn." And so I saw my red Cardinal, all by himself. I put out quantities of seeds, but he did not come back to the board during the daytime.

Although Robins were here March 1, winter had by no means left us, and that food-board was decidedly overworked! One big, heavy-breasted Robin, which I nicknamed 'General Bobby,' was the most aggressive bird I ever saw! His hunger was ever-present, and he ordered every Sparrow in sight to 'lay low' when he came. He pecked, he chased, he dove with his beak so suddenly on the Sparrows, at times, that they squeaked with fear. I thought he was paying up for some of the mean treatment that the "wretched Sparrows" have, in the past, accorded other members of his family. Then, after he had chased them all off, he would commence to gobble sunflower seeds as fast as he could. But the Sparrows had no intention of giving up their feeding-place, so they used strategy! Four or five, at once, would rush at General, and make him so furiously angry that he would chase them off across the yard. This was what they wanted! Then, the whole feathered family would fly down to the board and begin to eat rapidly.

Later on, in the spring, Chipping Sparrows came modestly, and one morning, after a heavy frost, I saw, to my delight, Robins, English and Chipping Sparrows, and one half frozen little Tree Sparrow, all on the board at once!—EMILY MORRISON WAITE, *Ravenna, Ohio*.

Cardinal and Catbird

This story presents many unusual, but all true, incidents that took place during the summer of 1922, in our grounds, at Noblesville, Ind.

A pair of Cardinals that have been in our neighborhood for the last two years decided

this spring, to nest in a Tartarian Honey-suckle bush. There they built nest No. 1 and hatched three birds. Two of the little fellows soon disappeared but they reared the other one to maturity. They then moved over about 2 feet in the same bush and built nest No. 2. On the day the third egg was laid the House Wrens destroyed all three eggs. The Cardinals promptly moved to the trellis over the conservatory and built nest No. 3 and laid three eggs. Two of these eggs were typical Cardinal eggs, the other was a funny little egg and almost a clear white color. We could readily see in the nest from inside the conservatory, and we speculated considerably on the hatching of this small egg. In due time it hatched out a Cardinal which grew to maturity while the other two normal looking eggs never hatched.

Now, while the Cardinals were occupied with nest No. 3, a pair of Catbirds having raised their first brood, and were looking for a site for their second nest, discovered Cardinal nest No. 1 and appropriated it to their own use rather than build a new nest. Soon the nest had three baby Catbirds, but before they were feathered there came up a wind storm during an afternoon and tore down the nest. This was discovered two hours later when we picked up the naked and chilled birds, placed them in the battered nest, and replaced it securely in the bush. Mrs. Catbird promptly hovered and warmed them and they were reared to maturity.

To return to the Cardinals. After having reared the single bird from nest No. 3 they built nest No. 4 about 6 feet down the same trellis and also in such a position that we could see into the nest from the conservatory. Three young Cardinals in due time arrived and were about half feathered when there occurred a tragedy that makes us heartsick to think about. Being away from home all day until late in the evening, we discovered, upon returning, that Mr. Cardinal was distressed and calling his mate. We became concerned and a hunt resulted in finding her dead in the Sparrow-trap, thus leaving a family of three little children, two young to shift for themselves, to the care of the father. All the next day Mr. Cardinal mourned the loss of his mate and only occasionally fed the

hungry mouths, spending most of his time in calling and hunting the lost mother. We were unsuccessful in getting them to eat for us and during the day they crawled out of the nest and fell to the ground. That night we gathered them up and placed them in the nest and the nest in a cage. The next day the father fed them through the bars but he had such difficulty in giving them food that the day following we released them and at night caught them and placed them in the cage. The fifth night we could not find them and feared for their safety and welfare.

The next day we found all three and, to our surprise, Mrs. Catbird was feeding them and continued to feed and mother them until they were as large as their father. Mr. Cardinal resented this and would fight and drive her away every time he brought food, but mother Catbird never faltered in repaying the debt she owed for the nest she stole rather than build one.

I am assuming that this was the same Catbird and a female regardless of the fact that we had two pair of Catbirds with us, but the story is more complete to think it was the mother Catbird from Cardinal nest No. 1 who reared the orphan Cardinals.—EARL BROOKS, D.D.S., *Noblesville, Ind.*

An Exceptional Music Lesson

If hearing vocal lessons deliberately given and practised by birds is as unusual an experience among others as it is with me and those of my friends to whom I have told what I had the pleasure of hearing a few years ago, it might be of interest to give this bit of experience wider publicity.

It took place in Conneaut, Ohio, in the summer of 1916. A large apple tree stood near one of my windows, which was always open at night. This tree was a rendezvous for both the familiar resident birds and others merely passing through in their migrations.

Early one morning a Wren song broke out suddenly, and as suddenly I was wide awake, and for half or three-quarters of an hour was an unbidden listener to a bit of child-training that is one of the treasures of my memory. The full song was sung through lustily, then a pause. A timid little voice piped out two or

three uncertain notes. The song, the pause, and the effort were repeated once, but no more. Next came what we might call one measure—the first four or five notes—of the song, slowly and deliberately. The young son, as I take for granted he was, tried bravely to make some imitation of these sounds, and for thirty or forty minutes these same few notes were painstakingly repeated, and however unsuccessfully, imitated, until I felt like going to the rescue of the poor little fellow. However, the time of that lesson was evidently up, for the whole song now rushed forth with all its original speed and vim, two or three times, with no pause for imitation, and they were off for breakfast. At the end of the lesson the pupil had got the number of notes and the time very well, but the quality and pitch seemed hard to master.

The next morning my hope that I might hear another lesson was realized, and it evidently really was the second, though the pupil had apparently done some rehearsing on the first one. The whole song was gone through once or twice, as on the morning before; then the part used as the first lesson was repeated by both three or four times, and much more successfully by the youngster. Then three or four notes were added and the lesson proceeded exactly as on the previous morning and ended in the same way. The same methods were followed on succeeding mornings until, within probably less than a week, the whole song was so well mastered that it was hard to tell the teacher from the pupil.—FLORA A. HODGE, *Grand Forks, N. D.*

An Acorn Hoard

One of the canniest providers of winter stores that I know of is the California Woodpecker of the Laguna Mountains in southern California. In October I was on top of these mountains, where, at an elevation of between six and seven thousand feet, they are covered with handsome pine and live-oak trees.

I observed a pine tree at least 5 feet through, the bark of which was riddled with holes somewhat over $\frac{1}{2}$ inch across, and from an inch to an inch and a half deep. In many of these holes, acorns had been thrust, point first, so that the other end was flush with the

surface of the bark. This great pine tree, with its sieve-like bark bearing a bounteous crop of acorns, puzzled and interested me intensely. I learned that it is the storehouse of the Woodpeckers who were then in the middle of their harvest.

This information was verified by the wife of the forest ranger who has a cottage near this particular tree. From the bountiful crop of acorns nearby the Woodpecker has only to fly a few yards to the pine tree and deposit his burden in one of the many holes in the bark. If the nut will not go in, or if it fits too loosely to stay, he tries another cavity. Some of the holes looked as if they might have served many generations of birds; others seemed comparatively new. All were well formed, of uniform appearance, and varied little in size.

I estimated that, from near the ground up to and including a number of large limbs 50 to 70 feet from the ground, the bark of this tree contained an average of fifteen to twenty-five of these holes to the square foot, or between 10 and 20,000 holes in the tree. At least one hole out of every four had an acorn in it, so that there were from 2,500 to 5,000 acorns already stored away in that tree, and the harvest was just well under way. This store, reduced to cubic measure would, make quite a supply, for the nuts were of fairly good size.

I saw hundreds of pine trees similarly punched with holes for holding acorns, some empty and others in various stages of being filled; some apparently were no longer used or others were preferred because of their location nearer to a well-loaded oak tree. What provision of nature taught these birds to make holes just large enough to hold these particular nuts? How many years of association of oak trees, pine trees and Woodpeckers in that locality were required to develop this phenomenon?—GRANT FOREMAN, *Muskogee, Okla.*

A Trip to Florida with a Stormy Petrel

In December, 1914, I sailed from Baltimore for Jacksonville. It was the stormy season, and off Old Point Comfort, Va., our boat had to anchor for two days. A terrific gale, in-

juring much shipping, raged by day and night. At the end of the second day, the stewardess came to my stateroom and said: "A Stormy Petrel has just blown in. I hope he is not dead for the sailors are so superstitious about those birds."

I begged her to bring the bird to me. She returned soon with the dear brown thing, limp and bloody, perhaps from striking some part of the steamer. We washed off the blood and bathed it with some mild antiseptic. I asked for warm milk with a bit of wine, and, opening its small bill, poured a few drops down its throat and soon it began to move. Fearing to frighten it, I made a nest out of a woolen scarf, carefully laid the bird in it and went out on deck for about an hour. Returning I found my little patient had opened his eyes. Covering his head so not to alarm him, I opened his bill and gave him more milk and wine. The next morning the nest was empty for my little guest had hidden away in the dark under my berth.

It was a Wilson's Stormy Petrel, I afterwards learned, with a band of white feathers at the base of the tail and yellow webs connecting the claws. The bird was with me for four days, eating from my hand but never uttering a sound. With regret I released him in the harbor of Jacksonville on our arrival. He was apparently well, and skimmed over the water, without turning to say good-bye to his friends.—ELVA LOUGEE, *San Diego, Calif.*

Seven Years of the Starling

In 1915 the first Starling was seen at Waterford, Saratoga County, N. Y., 160 miles north of New York City. For several years only a few were seen, mostly breeding in church towers. Today almost no Starlings nest in the village, yet every available cavity in the surrounding bottom-land is occupied by them. In a bird-count of Waterford Township, 110 pairs of breeding Starlings were enumerated, making it ninth in the list of the most common birds of this area—6 square miles.

As a nesting-site, it prefers Flicker holes, especially those in telegraph poles along a canal; next, it occupies the cavities in isolated

dead trees, taking other holes only after these two have been preempted. No nests in buildings or in roofs have been found. The nests in the poles have been used for two broods in many cases—the first in early May and the young of the second leaving the middle of July.

On June 19, 1922, about 500 immature Starlings were roosting in a small, inland, cattail marsh here; on June 24, the number was 700; on July 6, 2,100 Starlings were counted as they poured down into the roost; on July 13, the number had dropped to 500, and, a week later, to 100.

Standing on a low hill 3 miles west of the roost, the birds could be seen at sunset, flying still farther west. What caused the sudden exodus? The same thing occurred last year. The 400 Grackles, that also roosted in the marsh, left at the same time but flew southeast to the new roost each evening now instead of using the new Starling roost. Nothing disturbed the birds in the marsh, and I think it is merely the ending of the breeding-season that brings the change.

With all these birds in this township no damage to fruit, grain, or other crops has been seen, though the flocks were carefully watched. The small flocks remain in the pastures around cattle and the larger flocks either fly out of this area or feed in fresh-mown hay-fields. In winter a hundred birds can be seen feeding on the village dump and roosting in a church tower, probably the only ones that have not migrated.

The only act of violence witnessed was the mobbing of a Night Heron at dusk by a band of thirty birds that followed for a mile jabbing repeatedly at it. Yet in this section Bluebirds nest either in fence-posts or some other undesirable (to a Starling) location; Flickers are seen driving holes that are occupied by Starlings later; and House Wrens are found only in the village shrubbery. There must be a reason! House Sparrows feed all winter in perfect harmony with the Starling and never seem to be molested.

Summing it up, despite the rapid increase and the competition caused by it, the Starling, after seven years, seems very desirable here. Yet it is only with foreboding that one can watch the dusky birds sail into their

roost or leave it in a vast, twinkling, cloud. If they have reached this number in seven years, what will fifty years bring?—EDGAR BEDELL, *Waterford, N. Y.*

Notes on the Red Crossbill and Rose-breasted Grosbeak

While I was camping on Sand Lake, south of the Algonquin Park Reserve, great flocks of the Red Crossbills, male and female, were seen on August 15, and from that day on until I came away, on the 26th, they could be seen and heard at any time of the day, and on both sides of the lake for several miles. They were constantly uttering their Goldfinch-like calls to each other, and every now and then one would sing a sweet song consisting of four or five notes, starting on the dominant of the key and going down to the tonic in triplets. This sweet little song I heard many days before I identified the bird. Looking at the birds from a short distance, they looked quite like small Parrots as they turned almost upside down in their search for cones. Some of the males were bright red and others well speckled with red and green, and the females were olive-green and brown.

Have any of the readers of this magazine noticed that the female of the Rose-breasted Grosbeak sings? I heard her, to my astonishment, several times this summer, sing a beautiful soft song, similar to that of the male, but shorter. She would then utter a peculiar call to her young, and be answered by them as they surrounded her, *Me-up, me-up, me-up*.—ANNA E. MACLOGLIN, *Hamilton, Canada.*

Evening Grosbeaks in 1921-22

On November 9, 1921, we saw a flock of about ten male Evening Grosbeaks feeding on wild cherries across the road from the house. On February 27, 1922, a neighbor called us to see the strange birds feeding on his sunflower seeds. We saw three male Evening Grosbeaks. He said they had come for several days. On March 30, 1922, we had a snowstorm and the morning of the 31st Mr. Bates shoveled patches of snow away and put out

mixed chicken-feed. During the three days the snow stayed on the ground the following birds came to the cleared spots of ground: flocks of Juncos, Tree Sparrows, Horned Larks, several Song, Fox, and English Sparrows, Evening Grosbeaks, Grackles, Robins, one Meadowlark, one Cowbird, one Starling, a White-breasted Nuthatch, and a Downy Woodpecker. The latter two had come all winter to feed on suet which we had on the tree trunks. All the birds, except the Meadowlark came to the cleared space next to the porch. After the first Evening Grosbeak had found the sunflower seeds on the ground, on April 1, the flock increased until, they left on the afternoon of May 9th, when there were ten males and three females. They came every morning between 6 and 7 o' clock and fed off and on all the morning. We had a feeding-shelf built in each of two trees and a long one fastened to the porch. As we have studied birds for only a year we were delighted to make the acquaintance of the Grosbeaks, and we shall look for them again next winter.—MRS. FRANK BATES, *Glenfield, Lewis County, N. Y.*

A Stray Flock of Martins

The Purple Martin is one of our most regular migrants, both spring and fall movements being conducted with great regularity. The southward movement begins soon after August 1, and my latest previous record is September 1, 1917. Professor Barrows, in 'Michigan Bird-Life,' also gives September 1 as the latest probable date. This year the movement took place as usual, the last ones seen in this vicinity being three on August 20 near Salem, Washtenaw County. Auto trips through the surrounding country failed to reveal others.

On September 3, I was returning from Kingsville, Ont., by steamer. As we came to the lower end of Bois Blanc Island, at the mouth of the Detroit River, at about 6.30 p.m., I saw a few Martins. Soon their number increased until we were in the midst of a whirling, chattering cloud of them. They extended as far as the eye could see and their numbers seemed endless. But we soon passed through them and within a mile from where

the first ones were seen the last stragglers were hurrying to overtake their companions. Where did these Martins come from?

During our brief stay in Kingsville I saw a Least Bittern and a Mockingbird. Of the latter there are only a few previous records for Ontario.—RALPH BEEBE, *Detroit, Mich.*

A Mockingbird in the Bronx

On the evening of October 9, we happened to be at Hunts Point, when we noticed a slaty gray bird, with a whitish chest, a little

smaller than a Thrasher, with a long tail that showed much white when in flight. It flew into some dense underbrush and was hidden from view. We were puzzled—could it be a Mockingbird? Sure enough. Soon it reappeared, and perched in plain view, and in excellent light upon a protruding branch. We watched it at close range, with our field glasses, for a full quarter of an hour, noticing the long straight bill and the peculiar markings on the wings, and were absolutely certain of its identification.—JOHN and RICHARD KUERZI, *New York City.*

THE SEASON

Edited by J. T. NICHOLS

XXXIV. August 15 to October 15, 1922

BOSTON REGION.—The exceptional feature of the past two months was the absence of a severe killing frost. As a result of this holding off of winter there occurred a remarkable autumnal blossoming of certain species of fruit trees and spring-flowering shrubs, and many of the summer flowers continued to bloom far into the fall. Although the countryside presented the appearance of flourishing summer vegetation, most of our resident birds left, as usual, during the four weeks following mid-August.

Late in August the Kingbirds gathered into companies, often of a dozen or more, and according to their usual habit, disappeared almost completely before September 1. I know of no species of bird in this region which each year on a given date, vanishes as suddenly as the Kingbird. The Barn Swallows left the barnyards, and, in preparation for migration, collected on roadside wires, and within a week of the Kingbirds' departure they, too, were gone, leaving the country nearly deserted.

The first group of migrants from the North, e. g., Blackpoll Warblers, White-throated Sparrows, Brown Creepers, and Juncos, arrived on normal dates, or, in some cases, a little early. With them came the vanguard of the Golden-crowned Kinglets, the leaders in a Kinglet migration which proved an exceptional one. This Kinglet has not occurred

here so numerous since the autumn of 1916, and since then in some years it has been so scarce as to excite comment in print (see F. H. Allen, *BIRD-LORE*, 1919, pp. 361, 362).

There was a heavy migration of Double-crested Cormorants, and Gannets are off our coast now in remarkably large numbers. The shore-bird flight, which began conspicuously in late July, is still passing, represented by Greater Yellowlegs, Semipalmated and Black-bellied Plover, Sanderlings, and Turnstones. During September, Golden Plovers were reported as occurring numerous on Cape Cod.

Mr. Forbush ('Notes for Observers,' October 16) speaks of "an influx of Woodpeckers in Maine" and advises us to "look out for Arctic Three-toed Woodpeckers this winter." A favorable place to look for them is in a burned area where dead trees are still standing.—WINSOR M. TYLER, *Lexington, Mass.*

NEW YORK REGION.—The flight of shore-birds along the ocean side of Long Island in the latter part of August is reported to have been large, the Greater Yellowlegs and Black-breasted Plover especially being present in unusual numbers. A Marbled Godwit was definitely identified at Cedarhurst, August 17 (Rolfe Floyd, Jr.). A flight of Hudsonian Godwits occurred August 28,

Shinnecock Bay (W. Pell, II); a flock, probably Hudsonian, near Hicks Beach, August 30.

A flock of 23 white, and 1 blue Little Blue Herons at South Plainfield, N. J. in August (W. DeW. Miller), is remarkable. The northward movement of this species may have been further to the west than usual, but some also followed the easterly course along Long Island, as one was observed at Mastic, August 26, and the species is recorded at Montauk, September 5 (L. Griscom). H. F. Stone observed a Least Bittern at Lawrence, Long Island, September 21. This is a late date, and the species is also rare on the island even in migration.

The Yellow Palm Warbler, Central Park, N. Y., September 22 (Griscom), is early.

Late September and early October weather was unusually mild and summery. Conditions seemed right for the southward flight of arboreal Warblers, etc., to linger in this latitude to unusually late dates as they sometimes do. Such seems not to have been the case, however, with the single exception of the Cuckoos. A transient Black-billed Cuckoo in some low, scrubby trees in a field, Garden City, Long Island, October 8, is rather late for that species, and a Yellow-billed Cuckoo in a big linden tree at Mastic, October 14, is decidedly late. Though the Mastic trees were almost everywhere full leaved and green, only a little brown or a little bare, other birds were essentially those to be looked for at this fall date: Swamp Sparrows, calling along the creek, White-throats, Myrtle Warblers, Golden-crowned Kinglets, Hermit Thrushes, etc.—J. T. NICHOLS, *New York, N. Y.*

PHILADELPHIA REGION.—With the exception of a few days in mid-September, the fall season has been abnormally warm and exceedingly dry. Early October was especially summer-like, the thermometer registering 93° on October 4. During the heat period the wind blew almost continuously from the southwest and bird-life seemed at times to be almost absent. At Cape May, October 1, temperature 85°, on an all-day trip, only eighteen species were recorded.

The northward migration of Egrets and Little Blue Herons it seemed was not up to

the standard set by the summers of 1920-21. However, a number have been about. Mr. Delos Culver writes that he observed about a dozen Egrets and Little Blues on the meadows back of Wildwood, N. J., on September 23.

A seasonable yet always interesting flight of Hawks was observed at Cape May on September 17; Sharp-shinned Hawk, 60; Cooper's Hawk, 2; Bald Eagle, 4 (3 seen at one time); Broad-winged Hawk, 52 (?); Pigeon Hawk, 2; Osprey, 10; Duck Hawk, 2. The wind on this date was northwest, a seemingly necessary condition to produce a big flight. A bunch of a dozen Hawks were found which had been shot—10 Sharp-shinned, 1 Pigeon, and 1 Sparrow Hawk. While not of an ornithological nature, yet of considerable interest to the nature-lover, was a tremendous migration of monarch butterflies on this date. They passed down the coast literally by the millions, a continuous line all day. At Cape May Point, where there is a considerable growth of pine trees, many of the insects had stopped to rest, and the pines presented the appearance of deciduous trees covered with dead leaves. Reports from Atlantic City on the same day stated that the insects were present in clouds.

According to a local paper, the 'seagulls' have become so numerous along the New Jersey coast that the fishermen are up in arms, and are intending to ask the lawmakers to legalize the shooting of these birds. The reason, of course, is very clear (?): The Gulls smash all the clams by carrying them high into the air and then dropping them on the hard sand. This is carried on so persistently that there are no clams left for the fishermen to gather for bait. Let us hope that the lawmakers turn a deaf ear to such flimsy reasons for persecution.

The bulk of the winter residents have not as yet (October 9), it seems, put in appearance, the Junco being the only one that is at all common.

October 12, two Turkey Vultures noted feeding on a dead skunk at Oaks, Pa., October 13, decided change in temperature, 45° this A.M., chirps of many migrating Sparrows heard last night.—JULIAN K. POTTER, *Camden, N. J.*

WASHINGTON REGION.—Each season of ornithological work brings its surprises and rewards, sometimes greater, sometimes less. Nor were the months of August and September, 1922, an exception in the region about Washington, D. C. To judge from the Warblers reported in August and from other advance records, the migration in general seemed to be rather early, although birds as a whole, except for certain species, particularly water-birds, did not seem to be abundant; on the contrary, rather less numerous than usual. Furthermore, not so many, nor so long-continued, migration waves were noted.

The earliness of the season was indicated by the appearance of the following species in advance of their usual time of arrival: Magnolia Warbler, August 25 (average date of autumn appearance, August 31); Wilson Warbler, August 25 (average, August 27); Winter Wren, September 28 (October 7); White-throated Sparrow, September 26 (October 4); Yellow-bellied Sapsucker, September 26 (October 3); and the Swamp Sparrow, August 29 (the average of which is October 9, and the two earlier records, August 21, 1913, and September 28, 1890). Furthermore, three species were noted earlier than ever before in the autumn: the Duck Hawk, seen at Washington by C. H. M. Barrett, on August 29, the previously earliest report of which is October 23, 1900; the Black-throated Green Warbler, seen by Miss M. J. Pellew, at Glencarlyn, Va., on August 24, the previously earliest record of which is August 26, 1888; and the Loon, observed at Herring Bay, north of Chesapeake Beach, Md., by A. H. Howell on September 23, more than a month ahead of its previously earliest record of October 25, 1887, near Washington, and considerably in advance of the previous records for Chesapeake Bay.

Induced probably by the warm, pleasant weather, the Yellow-throated Vireo was noted singing on August 26 and 29, and September 3 and 5, which is later than is usual in this region. Likewise, a Parula Warbler, in the suburbs of the city, on September 24, rather astonished us by singing several times, and fully as well as in the spring.

A few birds of uncommon or irregular occurrence in this vicinity likewise made their appearance during the period. Three Laughing Gulls were seen by F. C. Lincoln at Alexander Island, just below Washington, on the Potomac River, on August 25, and five in the same locality by the present writer on August 29. Both of these records are materially earlier than the species has been seen in this region in the autumn, since September 9, 1914, is the earliest previous record. A fine male Baldpate was seen at Dyke, Va., on September 14, by Dr. R. W. Shufeldt; a Florida Gallinule, on August 29, at Alexander Island, by C. H. M. Barrett; and Upland Plovers, in migration, on the night of August 16, were heard by Miss M. T. Cooke.

Some species have been rather more than ordinarily common during the present autumn. The Bobolinks in their Reed-bird attire were here in great numbers for a considerable period, and furnished much 'sport' for local hunters. With them came the Soras, likewise in numbers, and dwelt in all the marsh areas in the vicinity of Washington. The Lesser Yellowlegs were also common; the larger species apparently not so, though also present.

Perhaps the most interesting local ornithological feature has been the occurrence of seven species of Herons, some of them in noteworthy numbers, for the most part in the marshes on and about the above-mentioned Alexander Island. These species include the Least Bittern, Black-crowned Night Heron, Green Heron, Great Blue Heron, American Egret, Little Blue Heron, and the Louisiana Heron. The first four were in their regular numbers; the American Egret was common and was associated with the Little Blue Heron, which latter was the most abundant species of all, and was chiefly in the white plumage. Dates for the Little Blue Heron on which the largest numbers were observed were August 24, 25, 26, 28, and 29, although the birds were present during most of August and into September. The same dates apply to all the other species.

A single Louisiana Heron, the first ever reported in this region, was seen first by Miss M. J. Pellew on August 25, and was subsequently seen by her and a number of other

observers on August 26, 28, 29, in the vicinity of the same Alexander Island. Unfortunately, it was impossible, notwithstanding special efforts, to collect the bird, but there is no doubt whatever of its proper identification. In view of the recent probable occurrence of the species on the coast of Virginia, this District of Columbia record is particularly interesting.

As in several seasons past, the Purple Martins again this summer gathered into a roost in the city of Washington. This year the roost was located on New Jersey Avenue near L Street, and in the trees over this avenue, along which runs a double electric street-car track, they were present during the whole of July, all of August, and up at least until September 17, which is considerably later than the average date (August 31) of departure of the species in this vicinity. This year's roost was occupied by a very large number of birds, larger than has ever been observed before, some estimates ranging as high as 50,000, and was, as always, one of the interesting ornithological sights of the summer in Washington.—HARRY C. OBERHOLSER, *Biological Survey, Washington, D. C.*

OVERLIN (OHIO) REGION.—The fall migration started rather early this year. The first flight of Nighthawks, which generally opens the migration, came on August 15. They were seen practically every day after that until September 7. The largest flight came on August 29, a cold, drizzly day.

The weather during the latter part of August was much cooler than during the middle of the month, so that the first migrants came straggling in during the last two weeks. The Black and White Warbler was seen on the 24th, the Black-throated Blue, Magnolia, Blackpoll, and Blackburnian Warblers were here by the 27th, and the Cape May by the 31st.

During the first week of September the weather turned warm, so that very few Warblers or migrants could be found in the woods. On September 4, Wilson Snipe and a Virginia Rail were found in the marshes. This date was the last for the Yellow-billed Cuckoo, Ruby-throated Hummingbird, and Indigo Bunting. A Mourning Warbler was

found on the 7th and a Least Flycatcher on the 10th.

The migration quickened with the cooler weather of the second week in September. Pied-billed Grebes were here by the 15th. The 16th marks the last date for the Red-eyed Vireo and Kingbird, and the 17th for the Northern Yellowthroat and Semipalmated Plover. New arrivals on the 17th were Bay-breasted and Tennessee Warblers, and Ruby-crowned Kinglet.

The rest of September and the first six days of October were warm, with no rain at all, so that the woods contained only a few sulky birds and the migration progressed but slowly. A single Myrtle Warbler was seen on September 18. On the 24th, Juncos, Hermit Thrushes, and Black-throated Green Warblers were noted. It was also the last date for the Water Thrush. The 30th was the last date for the Black-billed Cuckoo. October 1 saw the arrival of Winter Wrens and White-throated Sparrows and the departing of Least Flycatchers and Wood Pewees.

From October 6 until the present (15th) the weather has been generally cool with a few light frosts and some rain. Many of the trees have shed practically all their leaves, making observation easier. On the 8th there was a marked increase in the numbers of almost every species. White-throated Sparrows seemed to be everywhere, while the Myrtles, Kinglets, Winter Wrens, and Towhees were quite common. Golden-crowned Kinglets and Brown Creepers were seen for the first time, while the Spotted Sandpiper, Wood Thrush, Redstart, and Ovenbird were seen for the last.

A flock of Wood Ducks was found in the marshes at Oak Point on the 9th and two Mallards were also found flying over the marshes near Vermilion on the same date. Thus far these have been the only reports of Duck migrants this fall, and as none were seen on the 15th when a hike was taken to the marshes near Cedar Point, we have reason to believe they have not yet come south.

The Magnolia Warbler, which has been the most numerous of the Warblers this fall, was still with us on October 12, as was also the Veery, Chestnut-sided Warbler, Blue-headed Vireo; and Fox Sparrow, a new arrival.

On October 15 a single Tree Sparrow was found. A Purple Finch and about five Savannah Sparrows were also noted. The Tree Swallows were quite numerous over the marshes where they roost in spite of the fact that it is way beyond their usual departing date. They will probably stay as long as the warm weather lasts.

The migration on the whole has been rather slow this fall, although it started early. The summer birds, as a rule, have remained longer than customary, while the transient and winter migrants have been, for the most part, late. The Warblers have not been very numerous, the Magnolia, as last spring, being the best represented.—S. CHARLES KENDEIGH, *President of Cardinal Ornithological Club, Oberlin, Ohio.*

MINNEAPOLIS (MINNESOTA) REGION.—The intensely warm weather of mid-August continued until the 24th, with daily temperatures of over 90° and midnight temperatures of 80° on one or two occasions. On the 24th, there was a sudden drop from 87° to 56° with a high wind and rain. But warm weather soon returned and continued with slight interruptions throughout the month of September. From September 4 to 9 there was a record-breaking spell of hot weather for this locality—96° to 98° at noon and very warm nights. On September 16, a light frost occurred at Minneapolis, while in the northwestern part of the state the temperature was below freezing—30° at Thief River Falls. The average temperature for September at Minneapolis was 65.6°. October began very warm—68°, on the 1st 72° on the 2d, and 89°, with a minimum of 68° on the 4th, the hottest October weather on record here. The U. S. weather observer remarked "We had the hottest September in years and October is setting out to beat September." But it turned cooler after this, and on the morning of the 9th, there was the first heavy frost at Minneapolis. A flurry of snow occurred up at Duluth on the 12th.

August 16. Found a brood of young Robins about ready to leave the nest. This is a late record.

August 19, to 23. Made a visit to the Pine County State Refuge. This is a large tract

of some five or six townships that has been set aside recently as a wild-life refuge. It lies along the St. Croix River, about 75 miles northeast of Minneapolis. It is a wild and rough region, with few settlers, many streams, and was once heavily timbered with evergreens and other trees, but is now largely without heavy forest, except along the rivers and streams, as it was devastated by the great Hinckly fire of many years ago. Ruffed Grouse, Prairie Chickens, and Sharp-tailed Grouse are abundant, the last two species in about equal numbers.

August 21 and 22. Nighthawks migrating in large numbers all day.

September 1. Dr. G. H. Luedtke, at Fairmount, Martin County, reported that on this date several American Red Crossbills visited his yard and later fed upon sunflower seeds and made frequent use of his bird-bath. These were early wanderers from their summer home in the northern part of the state.

September 16. Spent the day at the Long Meadow Gun Club Preserve, 10 miles south of Minneapolis, in the valley of the Minnesota River. It was the opening day of the Duck season. About 65 Ducks were killed by 17 hunters, as compared with over a hundred on the opening day last year. The species killed this year were, in the order of abundance, Blue-winged Teal, Pintail, Baldpate, and Mallard. At this place, so close to the Twin Cities, 1,048 Ducks were shot during the season last year. The number of each species taken indicates pretty closely the relative abundance. The club register shows: Pintails 299, 'Bluebills' (mostly Ring-necks) 208, Teal (nearly all Blue-wings) 154, Mallards 136, Baldpates 120, Spoonbills 36, Redheads 7, Black Ducks ('Dusky' Mallards) 4, 'Fish Duck' 1, unclassified 83.

September 17. While on the 'Duck pass' at daybreak, the most interesting thing that happened was the aerial flight and marvelous evolutions that follow the awakening of thousands—it seemed millions—of Tree Swallows that had spent the night roosting on the wild rice and canes of the sloughs. This began at 5.40, a short time before sunrise. The morning was cool, the sky slightly overcast, and but little wind stirring. The

Swallows rose from the rice in great swaying columns, dense and black, and mounted into the air like towering streamers of smoke, undulating and drifting about with the lower end of the column close to the rice, the upper end mounting higher and higher until finally it spread out like a vast mushroom, the tiny birds just visible as they fluttered and floated about in the upper air. Several of these streamers formed at the same time and as they swayed and moved about, two of them occasionally came together when they merged into one and the dizzy, whirligig game went merrily on in augmented numbers. Every now and then one of these columns broke asunder and the birds scattered in a vast revolving flock, only to come quickly together again as before. While scattered the birds all twittered incessantly, but as soon as the column was reformed they all became silent. After an hour or so the upper air became literally alive with Swallows, that could be seen plainly only with the aid of a glass. They milled about over a wide area, sustaining themselves by rapid, fluttering wing-beats alternating with brief periods of soaring, a manner of flight very unlike their normal movements.

This regular morning performance of the Swallows was so remarkable and spectacular that it attracted and held the attention of many of the members of the club, even though they were not interested in birds, and I am inclined to think saved the life of an occasional Duck that might have been bagged, had the Swallow-play been less absorbing.

September 23. The first Green-winged Teal shot at the Gun Club. This Duck is a rather late arrival from farther north.

September 24. The Swallows are still at the sloughs but the evolutions this morning were somewhat different. The birds did not tower so high but remained in great, whirling flocks which rose from the rice and settled back again from time to time, keeping this up from daylight until after 9 o'clock, when they scattered for the day. These great flocks left shortly after this date, only a few straggling birds remaining.—THOS. S. ROBERTS, *Zoölogical Museum, University of Minnesota, Minneapolis, Minn.*

KANSAS CITY REGION.—It will be remembered that the unprecedented invasion of Magpies down the Missouri Valley last winter penetrated northwestern Missouri as far as southern Holt County where fifty or more individuals were under observation throughout the winter. Word has recently reached the writer from an entirely trustworthy source that at least two pair of these showy and noisy strangers remained in that region to breed, and that the two nests in which young are known to have been raised are located less than three miles from Corning. Mr. Charles E. Dankers has been asked to photograph these nests if possible, and to furnish such documentary proof as will make this astonishing record absolutely authentic. This is, of course, a new record for Missouri.

Random notes for the early part of the current season include such records as the true singing of the Blue Jay heard on August 15, a rare performance indeed and only once before heard by the writer; a feeding Upland Plover seen on the Shelter House lawn in Swope Park on August 16; a Mourning Dove building a belated nest on August 22; Kill-deers and Green Herons heard overhead during the dark nights of August 24 and 26; a continuous migration of Nighthawks during the last week of August and the first week of September, when birds displaying every color and shade of plumage were seen perching about in shade trees and on feed wires and telephone cables within the city; Baltimore Orioles heard in full song as late as September 6; and migrating Savannah Sparrows seen on September 14.

A protracted heat-wave and drought gave way on September 8 to a forty-eight-hour downpour of rain accompanied by 25° drop in temperature which marked the beginning in earnest of fall migration. On the morning of September 10, several Black-crowned Night Herons and a mixed crowd of Sandpipers were surprised in Forest Hill Cemetery; on the 12th Meadowlarks fairly swarmed everywhere in the open, singing their particularly pleasing, rollicking traveling song; on the 13th the first Rough-legged Hawk, probably a bird of the year, was seen being worried by a pair of pugnacious Sparrow Hawks; and on the 15th the first large gangs

of southbound White Pelicans passed high over the city, giving local newspapers their first 'Wild Goose' opportunity of the year. On September 18 migrant Warblers of several species were present in all wooded places visited, but, owing to thick weather, identification was difficult. On September 20 a Red-headed Woodpecker was noticed hammering something into a crevice in an ancient telephone pole. A close examination of the pole showed it to be rent from top to bottom with wide cracks, each one filled with acorns. Several other old poles in the line were found to be stored in a similar manner and notes were taken for future reference. Little exact data seems to have been published regarding this well-known Redhead habit.

September 22 was a grand moving day for several common species, including Robins and Flickers, and the fields were again thronged with singing Meadowlarks. Immense flocks of tired and silent Cowbirds were seen where none had been noted lately and where they tarried only for the day. Yellow-billed Cuckoos were much in evidence in widely scattered regions during the last few days of September, but were not seen after October 1. On this day the behavior of flocks of feeding Nighthawks and Chimney Swifts was noted in the neighborhood of an aviation field where more than a dozen planes were constantly in the air. These birds, as well as flocks of Grackles and Robins returning to their roosts later in the day, paid not the least evident attention to the monsters. How quickly the birds have adjusted themselves to this seeming menace!

Another rain-storm on October 8, with a sharp drop in temperature and a touch of frost, settled passing migrants here in great numbers for a few days. The wooded bluffs and bottoms along the Missouri River in and near the city, and the upland woods further south were thronged with Kinglets, Brown Creepers, Warblers (mostly Myrtle), and the first Juncos. Two days later Harris's, White-throated, and Fox Sparrows, with a sprinkling of Song and Lincoln's were met with in the weed flats near the mouth of Blue River. A lone Vesper Sparrow was also identified. Thousands of resting and feeding Bluebirds were seen along the bluffs on this

and the following day; in fact, the writer never before met with such an immense gathering of this familiar species. The sound of shooting on the Missouri River during these two days and the sight of a few strings of Ducks in the air indicated a movement of water-fowl. On October 11 at least a dozen small Flycatchers, Traill's doubtless, but not satisfactorily identified, were seen on a 5-mile walk in the bottoms. On the 12th Myrtle Warblers were abundant on the uplands as well as in the bottom timber, and a flock of 40 Cedar Waxwings was seen flying over a point of the bluff below the Big Eddy. A winter feast awaits these berry-eaters in this region.

Local students and observers will grieve to learn that the last wild stronghold of the birds in the immediate vicinity of the city is doomed to fall at once. Vireos, Tanagers, Carolina Wrens, Rose-breasted and Blue Grosbeaks, Cardinals, Towhees, Wood Thrushes, and those other delightful songsters that have had their homes in the bluff woods beyond the Blue River, and the Orioles, Dickcissels, Indigo Buntings, Chats, Cuckoos, Traill's Flycatchers, Warblers, and the rest that have loved the thick tangled and open spaces of the adjacent bottom region, will be met on their return next spring by the roar of steam shovel and hydraulic nozzle. Not the least of the beauties of this region to be wiped out is the colony of hundreds of pairs of Bank Swallows in Santa Fe Cut.—HARRY HARRIS, *Kansas City, Mo.*

DENVER REGION.—This region has shared, with other parts of the country, a prolonged dry spell. However, this condition seems to have made no difference in the current of bird-life here. The last Black-headed Grosbeak was seen on August 19, and the Yellow Warbler was last seen on August 18, both dates being a trifle early, perhaps, for the departure of these species. Long-eared Owls seem to have been much more rare during the past three or four years, and I had begun to fear that the species was really getting uncommon, as it is in many regions in the East. It was a pleasure, therefore, to hear several of these Owls calling over the meadows and prairies at Parker (20 miles from Denver) on August 15.

Wood Peewees have been infrequent this year, while there have been more Broad-tailed Hummingbirds in Denver than usual. The last Wood Peewee was noted on September 7, and the Hummingbird was last seen on August 24. A considerable wave of migrating Plumbeous Vireos spread over Denver from August 24, to September 6.

A Flycatcher that braves weather which drives away other insectivorous birds is our Say's Phoebe, taking the place here that the common Phoebe does in the East. We have had some quite cold nights during the past week, yet Say's Phoebe is to be seen in the outskirts of the city every day. It occasionally winters at Grand Junction.

One often sees evidences of late nestings by the occurrence of very immature young long after all should have been well developed. This happened to me during the last week of August when a partly fledged Mourning Dove was seen in the street near my home. This is long after the great bulk of this species has ceased housekeeping.

Recently, while I was in the hills, my attention was attracted by a song much like that of a Mockingbird, although very weak and brief. A patient search showed that it came from a Vireo, which, when collected, proved to be a Cassin's Vireo, a very uncommon bird in Colorado. Shortly after this incident, the song of a Catbird, apparently, was heard near my home, a song which finally was proved to come from a Plumbeous Vireo. These two incidents show anew how much one can learn about species relatively familiar to the observer. I have never heard either of these Vireos sing those strains.

One can count with certainty on seeing Hairy Woodpeckers in the city late in August but not during the previous months. This year was no exception, for several were seen in my home neighborhood and in other parts of the city. They certainly are not driven out of the hills by lower temperatures, for they remain in the city even during zero weather. Perhaps it is merely wanderlust.

One of Denver's most erratic bird visitors is the Long-crested Jay, which with us takes the place of the Blue Jay. The Long-crested Jay appeared here during the first week of September, tarried a few days, and disap-

peared. The erratic wanderings of this bird are also a puzzle to me.

Warblers have been very scarce in the city, in fact, almost absent; Macgillivray's was seen on September 7, and, on several different dates after that, Audubon's appeared in our parks, the last date of its appearance here being October 7.

Early in September there was an extremely large wave of Robins going South over this region. All were very gray and some had an unusual amount of white about the head. I believe these all are birds from the extreme north, for they follow after and displace the local darker forms.

During a ten-days' sojourn in the hills recently (at a spot 30 miles by air-line from Denver) I noticed several interesting phenomena. For several days, during daylight hours, a steady stream of Brewer's, Clay-colored, and Chipping Sparrows flowed *down* the canyon of the South Fork of the South Platte River, traveling through the bushes and evergreens with apparently no retrograde movement. It was the first ocular demonstration I have ever had of such a large number of migrants following, in the fall, a stream downward towards the plains. Later on in the season, thousands of Robins winter in this same locality, yet I saw but two. As I motored home, two Ravens were seen, and a single Dusky Grouse, the first now rare, and the second becoming uncommon in the state.—W. H. BERGTOLD, *Denver, Colo.*

PORTLAND (OREGON) REGION.—There is nothing unusual to report from the Portland district this season. The summer birds, such as Warblers, Flycatchers and Hummingbirds, have mostly disappeared. Evening Grosbeaks, Pine Siskins, and Juncos have made their annual appearance.

The writer has been away from Portland much of the time since August 1 and consequently cannot report accurate dates for bird-movements.

In August I made a trip through the lake district of eastern Oregon and passed through the Malheur, Warner, and Klamath Lake sections. Ducks seemed to be unusually abundant and such birds as Avocets, California Gulls, White Pelicans, and Farallone

Cormorants were to be seen in large numbers. While I saw Western Grebes everywhere suitable conditions prevailed, Flagstaff Lake, of the Warner group, and Upper Klamath fairly swarmed with them. The usual desert birds, such as Sage Thrashers, Sage and Brewer's Sparrows, Kingbirds, and Arksanas Kingbirds, and Shrikes were abundant and ever present. The Sage Hen seems to be fast disappearing. Each year fewer are noted in traveling through this region.

During early September a few days were spent on the beaches of Tillamook County. The weather was fair and warm and fewer migrating shore-birds were noted than is usual at this season. A few Hudsonian Curlew, Marbled Godwit, Sanderling, and Western Sandpipers were all that were seen.

Duck-shooting season opened in western Oregon on October 1. The weather has been warm and the water low, consequently fewer Ducks have been reported. A larger number of Shovellers and Geese than usual are present, but the total number of birds is not as large. Wood Ducks are also reported as quite common along the Columbia River.—IRA N. GABRIELSON, *Portland, Ore.*

SAN FRANCISCO REGION.—A cursory glimpse of the water-birds on Bolinas Lagoon on August 16 revealed the presence of both White and Brown Pelicans. At Point Richmond, on the same day, one Wandering Tattler was seen. On August 20 a trip was made to the Farallone Islands by members and friends of the Audubon Association of the Pacific. They reported the birds seen as follows:

California Murres. The colony has been much reduced in number. A few were still nesting and the young were under constant danger from the attacks of the Western Gulls.

Pigeon Guillemots. A few.

Cassin Auklets. A few. Young were found in burrows by two different investigators.

Tufted Puffins. Numerous.

Western Gulls. The most abundant species on the island.

Cormorants, both Brandt and Farallone. Nests contained half-grown young.

Fulmar. Seen from the boat before reaching the island.

Shearwaters. A flock seen on the return trip.

Brown Pelicans. Seen from the island.

Ruddy Turnstone. One seen.

Wandering Tattler. Two seen.

Rock Wrens. Numerous.

English Sparrows. Numerous.

Reports from Baumberg, where both fresh and salt water is abundant, are dated September 17 and 20, and include Bonaparte's Gulls, Farallone Cormorant, innumerable Pintails in eclipse plumage, Great Blue Herons, Coot, a few Northern Phalaropes, about 25 Avocets, 4 Stilts, 30 Dowitchers, a few Sandpipers, about 35 Yellowlegs, and many Killdeer. In addition to the resident land-birds, on September 20, great aggregations of Violet-Green Swallows were hawking over the marshes or resting on the telephone wires. A few Barn Swallows (a species which nests in the region) flocked with them.

On the Alameda shores Mrs. Kelly reports the Curlew in diminishing numbers since mid-August. Dowitchers have not been abundant at any time; Willets and Godwits increasingly abundant; Western Sandpipers augmented by the Least on September 3 and by the Red-backed on September 19. Black-bellied Plover reached their height on September 19, when 100 were counted in separate feeding-places, presenting all phases of plumage. On August 25 and October 7, Semi-palmated Plover were seen, and on September 28, on a sandy beach, 2 Snowy Plover. The draining of Bay Farm Island is apparently driving the Clapper Rails to the outer edges of the island, where Mrs. Kelly heard 6 on September 3. Forster's Terns were first seen on September 23. On the bay, Northern Phalaropes are numerous near the piers, and Heermann Gulls mingle with the other Gulls which follow the boats. On September 16, Mrs. Kelly saw Brown Pelicans near the ferry-boats.

Of the land-birds that come in for the breeding season, Western Flycatchers and Yellow Warblers were last recorded on August 31 (Miss Wythe), Black-headed Grosbeaks on September 9 (Mrs. Allen), Russet-backed Thrushes on September 20 (Dr. Storer), Pileolated Warblers on October

4 (in Claremont Canyon, where they are recorded earliest in the spring), and Allen Hummingbirds on October 11 (Mrs. Bogle).

Winter birds were reported on the following dates: Red-breasted Nuthatch, September 7 (Miss Wythe and Mrs. Allen); Sharp-shinned Hawk, September 14 (Mrs. Allen); Cooper Hawk, September 16 (Mrs. Allen); Intermediate Sparrows, September 22 (Mr. Storer); Townsend Warbler, September 25 (Miss Wythe); Fox Sparrow, Golden-crowned Sparrow and Ruby-crowned Kinglet, September 30 (Mrs. Allen); Audubon Warbler and Golden-crowned Kinglet, October 1 (Miss Wythe); Cedar Waxwing, October 8 (Mrs. Allen); Say's Phoebe, October 8 (Mrs. Kibbe); Dwarf Hermit Thrush, October 11 (Mr. Storer); and Varied Thrush, October 12 (Mrs. Allen).

A few of the more unusual birds have been reported as follows: A Cassin Vireo on the University Campus on August 23 (Dr. Grinnell); Western Tanagers, August 20, September 2 (Mrs. Allen); September 24 (Mrs. Schlesinger); Western Gnatcatcher, September 7 (Mrs. Allen), October 5 (Mrs. Bogle); Creeper, September 28 (Mrs. Allen), October 1 (Miss Wythe); Western Winter Wren, October 5 (Mrs. Schlesinger); and White-throated Sparrow, October 12 (Mrs. Freeborn).—AMELIA S. ALLEN, *Berkeley, Calif.*

LOS ANGELES REGION.—The efforts of the Least Terns of Playa del Rey to hold title to their historic nesting-ground, in the face of the increasing aggressions of their chief enemy, man, and his attendant satellites, have been graphically described in a recent ornithological magazine.

On August 13, a half hour was spent by the writer in watching and counting Least Terns that were resting on the upper beach. A few came and went to and from lagoons and ocean, the number in the flock at rest varying from 25 to 31, all but three of them being adult birds. No young were seen on the wing. Willets were numerous, a large proportion of those seen wearing the plumage of the young. Western Gulls were accompanied by their young.

September 1, Orioles and Black-headed

Grosbeaks came for the last time to the writer's garden. A bed of blossoming four-o'clocks in the garden of a member held the Orioles there until the supply was exhausted September 16.

September 2, 3, and 4, near Fallbrook, San Diego County, Lark Sparrows were very abundant in the fields. A Buzzard's roost was located, occupied by about 50 birds. In the vicinity of Los Angeles, the extension of agriculture and of buildings into areas formerly utilized as pasturage has reduced the numbers of Buzzards very noticeably. Another group, going to San Diego September 2, kept a close watch for Phalaropes, but saw none. Returning September 4, small flocks of the Northern Phalaropes were seen scattered along the coast, aggregating perhaps 50 birds. Willets, Godwits, Dowitchers, Sanderling were numerous. One Avocet was seen, and many flocks of Forster's Terns, the first reported this season. Black Terns were seen at Lake Elsinore, where there were three White Pelicans. First Ducks of the season were flying southward over the ocean in large flocks. A beautiful sight was presented by a large flock, thought to be Pintails, dropping from the evening sky into the Santa Ana River in its still reaches in the lower canyon.

September 3, at the entrance of San Antonio Canyon two Least Vireos were seen, one of them singing in the extremely dry and intensely hot air, with all the ardor of the springtime.

September was notable for a very distinct revival of song on the part of a number of species, Anthony Towhee, Black Phoebe, the Shrike, Goldfinches, being especially evident. The brilliance of the Shrike's September song was commented on by several individuals. September 12, in a Pasadena locality, the writer listened to a mid-morning bird musicale, the chief performers in which were 3 Shrikes, several Mockingbirds, many Green-backed Goldfinches, and 1 Plain Titmouse. A Phainopepla was seen but not heard.

September 14. A trip to Bolsa Chica resulted in a list of 30 species, the most noteworthy being 1 Royal Tern, seen to excellent advantage resting on a bar with Forster's Terns where its identity was evident in bill and wing tips as well as comparative size;

1 Florida Gallinule, 1 Yellowlegs, and 2 Egrets. September 17, 8 adult Heermann Gulls were noted on a pier at Venice. Others were apparently fishing rather far out.

September 16, and 21, the song of a Gambel Sparrow was heard at Echo Park. None were seen until the 24th, and within the next two weeks they became common. The desiccating weather that prevailed at that time did not appear to hold them back. September 17, the hottest day of the summer, with the official temperature 102°, relative humidity very low and with brush-fires prevailing over many square miles of territory normally occupied by California Purple Finches, Mrs. Robert Fargo reports the appearance in her garden of five individuals of that species, one male and four females. She reports that they appeared very weary, panting visibly with bills open as they perched on the wires, where they excited the interest of the House Finches that gathered near them, affording opportunity for comparison.

September 25, Mrs. F. T. Bicknell reports seeing a Snowy Egret (*Egretta candidissima*) at Playa del Rey. It was under observation, within easy range of the glasses of three competent people together for a period of about two hours, and its identity undoubtedly established.

September 24, Barn Swallows were re-

ported gathered in considerable numbers over shallow ponds in a marshy district on the coast, where Ducks and Northern Phalaropes were assembled in hundreds. September 27, of the Swallows, but two Barn and one Cliff were seen in a period of four hours spent at the ponds, in the middle of the day. Phalaropes were there in very large flocks, so far as could be ascertained all being the Northern. An unidentified Hawk harassed them with frequent attacks. Waders were numerous, including considerable numbers of Yellowlegs. Three Egrets were seen in the marshes.

September 25, two large flocks of young Farallone Cormorants were seen near Manhattan Beach. Heermann Gulls were numerous and one of the smaller Grebes was listed.

October 5, both the Horned and Eared Grebes were seen at Playa del Rey. Black-bellied Plover have been very little in evidence at any time the shore has been visited. Hudsonian Curlew are now but rare stragglers, immense numbers having passed down our shores in July and August.

Audubon Warblers became numerous about October 8, and one Ruby-crowned Kinglet was noted. Western Gnatcatchers are common in brushy foothill regions.—FRANCES B. SCHNEIDER, *Los Angeles, Calif.*

ANNUAL CONGRESS OF THE AMERICAN ORNITHOLOGISTS' UNION

The fortieth Annual Congress of the American Ornithologists' Union convened in Chicago, October 23 to 26, 1922. It was the first meeting of the Union to be held in the Mississippi Valley, and the fact that it was more largely attended than any previous meeting indicates that hereafter Chicago will hold its place in the A. O. U. itinerary.

The open sessions of the Congress were held in the public lecture halls of the Field Museum, which were dedicated on this occasion. For the first time in the history of the Union, the length of the program necessitated the holding of simultaneous sessions, Wednesday morning being devoted to papers and dis-

cussion on bird-banding, while at the same time papers on the more technical phases of ornithology were presented in another room. This procedure not only made it possible to present all the papers on the program, but it allowed time for discussion, often as valuable as the papers themselves.

The efforts of the local committee of arrangements, both in regard to the scientific and social phases of the Congress, were eminently successful. The annual dinner and excursion to the dunes were both memorable, while the exhibit of paintings and photographs of birds was such an attractive part of the program that it may well be a regular feature of subsequent congresses,

At the business meeting of the Union, held at the University Club on October 23, Dr. Arthur A. Allen, of Cornell University, was elected to fill the one remaining vacancy in the list of Fellows; Donald R. Dickey, Alfred O. Gross, Wharton Huber, Tracy I. Storer, and John T. Zimmer were made Members, and 268 Associates were elected. The titles of papers presented are appended.

1. A Sketch of the Wilson Ornithological Club. T. L. Hankinson, Ypsilanti, Mich.
2. The 'Broken Wing' Ruse in Mourning Doves. Mrs. Margaret M. Nice, Norman, Okla.
3. Some Observations on Struthious Birds. W. H. Sheak, Philadelphia, Pa.
4. The Home Life of the Chimney Swift. Miss Althea R. Sherman, National, Iowa.
5. Bird Notes from the Tennessee Cumberlands. Albert F. Ganier, Nashville, Tenn.
6. Remarks on Methods of Measuring Birds. Mrs. E. M. B. Reichenberger, New York City.
7. The Comparative Value of Bird Measurements. Illustrated by lantern slides. W. H. Bergtold, Denver, Colo.
8. A Contribution to the Home Life and Economic Status of the Screech Owl. Illustrated by lantern slides. Dr. Arthur A. Allen, Ithaca, N. Y.
9. An Eagle Observatory. Illustrated by lantern slides. Francis H. Herrick, Cleveland, Ohio.
10. Nest-Life of the White-headed Eagle—Late Phase. Illustrated by lantern slides. Francis H. Herrick, Cleveland, Ohio.
11. Notes on the Pelicans of the Yellowstone National Park. Illustrated by lantern slides. Henry B. Ward, Urbana, Ills.
12. Some Phases of Bird Photography. Illustrated by lantern slides. A. H. Cordier, Kansas City, Mo.
13. Impressions of Arizona. Illustrated by lantern slides. A. C. Bent, Taunton, Mass.
14. What Iowa Is Doing to Promote Bird Study. George Bennett, Iowa City, Iowa.
15. Selection of Birds for Banding. F. C. Lincoln, Washington, D. C.
16. What can be learned from a Bird Census. Miss May T. Cooke, Washington, D. C.
17. The Role of the Bird Census. Ludlow Griscom, New York City.
18. A few Notes from the Records of the New England Bird-Banding Association. Mrs. A. B. Harrington, Lincoln, Mass.
19. Methods of Trapping, Experiences or General Practice of Bird-Banding. W. I. Lyon, Waukegan, Ills.
20. Bird-Banding and Bird-Migration at Rositten on the Baltic Sea. Illustrated by lantern slides. T. G. Ahrens, Berlin.
21. Experiments in Bird-Banding. Illustrated by lantern slides. S. Prentiss Baldwin, Cleveland, Ohio.
22. The Great Plains as a Breeding-Ground for Water-Fowl. Harry C. Oberholser, Washington, D. C.
23. Present-Day Tendencies and Opportunities in Ornithology. Witmer Stone, Philadelphia, Pa.
24. The Sea-Bird Sanctuaries of Texas. Illustrated by lantern slides. George Finlay Simmons, Austin, Texas.
25. The Whitney South Sea Expedition of the American Museum of Natural History. Illustrated by lantern slides. Robert Cushman Murphy, New York City.
26. Distribution of the Genus *Momotus*. Illustrated by maps and lantern slides. Frank M. Chapman, New York City.
27. Further Observations on the Habits and Behavior of the Herring Gull. Illustrated by lantern slides. R. M. Strong, Chicago, Ills.
28. Bird Arrivals in Relation to Sunspots. Illustrated by lantern slides. Ralph De Lury, Ottawa, Canada.
29. The Influences of the Southwestern Deserts upon the Avifauna of California. A. B. Howell, Pasadena, Calif.
30. On a Collection of Birds from the Cape Verde Islands. Robert Cushman Murphy, New York City.
31. Is Photo-periodism a Factor in Bird Migration? C. W. G. Eifrig, River Forest, Ills.
32. A Possible Mutant in the Genus *Buarremon*. Illustrated by maps and specimens. Frank M. Chapman, New York City.
33. The Vocal Organs of the Prairie Chicken. Illustrated by lantern slides. James P. Chapin, New York City.
34. The Fundus Oculi of Some South American Birds and Reptiles. Illustrated by lantern slides. Casey A. Wood, Chicago, Ills.
35. Variations in the Structure of the Aftershaft and Their Taxonomic Value. W. DeW. Miller, New York City.
36. Laying Cycles in Birds. Leon J. Cole, Madison, Wis.
37. Status and Distribution of *Larus fuscus* and *Larus cachinnans*. Jonathan Dwight, New York City.
38. Notes on *Donacobius*. Illustrated by specimens. Ludlow Griscom, New York City.
39. Notes on Off-Shore Atlantic Birds. J. T. Nichols, New York City.
40. A Summer in Ecuador. Illustrated by lantern slides. Frank M. Chapman, New York City.
41. The Farallones. (Exhibition of film of the Biological Survey.) W. L. McAtee, Washington, D. C.
42. Familiar Birds and Mammals in Motion Pictures. Thomas S. Roberts, Minneapolis, Minn.
43. A Pre-View of New Brunswick Wild Life in Motion Pictures. Donald R. Dickey, Pasadena, Calif.
44. Flamingoes of the Bahamas. (Film loaned by the Miami Aquarium.) L. A. Fuentes, Ithaca, New York.

Book News and Reviews

LIFE HISTORIES OF NORTH AMERICAN PETRELS AND PELICANS AND THEIR ALLIES, ORDER TUBINARES AND ORDER STEGANOPODES. By ARTHUR CLEVELAND BENT. 8vo. xii+343 pages, 60 full-page half-tones. Bull. 121 U. S. Nat. Mus., 1922.

The appearance of this, the third of Mr. Bent's splendid series of 'Life Histories,' indicates that his great undertaking is progressing as rapidly as all the circumstances which lie between the field-book and the printed page permit.

Mr. Bent appears to have drawn on every available source of information, adding to the results of his own wide experience the studies of others. The whole, therefore, makes a truly adequate summary of our existing knowledge of the species treated. We regret that Mr. Bent has departed from the commendable practice pursued in his two earlier volumes, of using the nomenclature of the current edition of the 'Check-List' of the American Ornithologists' Union, rather than that of an unpublished edition which, at the best, will not see the light for several years. The object of scientific nomenclature in popular works is to identify the birds to which the names in question are applied, not to reflect the latest fashion in nomenclature; and this it seems to us can best be done by using an existing available standard rather than one which has not yet appeared. May we also suggest the desirability of including in subsequent volumes of this notable series fuller reference to those which have already appeared than is contained in the Introduction to this one.—F. M. C.

THE CANARY ISLANDS, THEIR HISTORY, NATURAL HISTORY AND SCENERY. By DAVID BANNERMAN. 8vo. xvi+365 pages. Colored plates, photographs, and maps. Gurney and Jackson, 33 Paternoster Row, London.

We call the attention of BIRD-LORE readers to Mr. Bannerman's work, not because we believe that any of them expect to visit the Canary Islands, or are even especially inter-

ested in their birds, but because it presents in such an admirable, instructive manner the results of expeditions made primarily for the study of bird-life but which have resulted also in obtaining much general information in regard to the origin of the islands, their physical characteristics and history.

The whole, therefore, has the combined value and interest of a general book of travel, a naturalist's narrative, and a specialist's conclusions in a field where he can speak with authority. All in all, therefore, Bannerman's 'The Canary Islands' is a model work and his publishers have given it a most attractive form.—F. M. C.

The Ornithological Magazines

THE AUK.—In the October number, 'A Study of the Nesting of Mourning Doves,' by M. M. Nice, is a more or less statistical statement based on between two hundred and three hundred nests observed at one locality in two seasons. It can well serve as a model for studies of this sort. Intensive observation of individual nests unquestionably yields results which can be obtained in no other way, but here, on the other hand, we gain an idea of how much of interest can be gleaned by comparison of a wealth of nests observed. "About a third of the nests were placed at 10 feet or lower, and about two-thirds from 12 to 20 feet." . . . "About two-thirds of the nests were found on branches, and one-third in crotches," with a preference for crotches in early spring. "A little more than half" of the crotch nests were successful, but only "slightly more than a fourth" of the branch nests. Building, material, height, etc., of the nest, use of other nests, incubation period, number of eggs, growth of the young, length of time brooded, length of time they remain in the nest, etc., are treated, and the article is to be concluded in an ensuing issue.

A. L. and H. L. Ferguson find that autumn Hawk flights along the coast at Fishers Island, N. Y., are correlated with clear,

colder weather and northwest winds. The Sharp-shinned, the most numerous Hawk in these flights, unquestionably prefers a north-west wind, but Pigeon Hawk and Duck Hawk prefer to fly directly into a southwest wind. Whittle presents additional data regarding the 'Arnold Arboretum' Mockingbird, with a table of the many bird-songs and calls imitated by it. It seems that a second Mockingbird, a female, appeared in the Arboretum just before this remarkable singer was last authentically noted there, concluding its almost six years' residence. Griscom, 'Field Studies of the Anatidae of the Atlantic Coast' (Mergansers and freshwater Ducks in this number), will be very helpful to anyone desirous of identifying these birds in life. Reading the description of the diagnostic shape of a flying Pintail, brings to mind the expressive adjective 'spidery,' wherewith Mr. Griscom called the writer's attention thereto a number of years ago. This 'trick' word, which would perhaps have been out of place in a scientific discussion, like the 'more shapely' (an expression from an old bayman) shape of the freshwater versus the sea Ducks, has proved very helpful. Allan Brooks, discussing the habits of the Bald Eagle in British Columbia, finds that at times they subsist largely on fish; at other times are very destructive to game- and water-birds. The latter they do not capture in flight, but pursue relentlessly, until exhausted by diving, and then take them from the surface of the water.

'An Arizona Feeding-Table,' by F. M. Bailey, gives delightful character sketches of western birds; in 'A Visit to Midway Island,' Bartsch summarizes species listed from that locality. This paper, together with a new Warbler from Southern Annam described by Riley, give this number of *The Auk* a foreign touch. H. F. Lewis, 'Notes on Some Labrador Birds,' listing 36 species, finds the sea-fowl on this coast less depleted than has sometimes been supposed, gives a Labrador record for the European Starling and Bronzed Grackle, and judges that the Song Sparrow is extending its range there. J. D. Corrington lists 112 species of winter birds from the Gulf coast of Mississippi, and gives a short ornithological bibliography

for the state. The Ivory-billed Woodpecker is still "uncommon rather than rare" in a certain wild swamp of considerable area.

In General Notes are various records of rare occurrences and items of faunal interest, among them the Wood Ibis at Cape May, N. J. (Stone), Cerulean Warbler at Washington, D. C. (a May, 1922, record, and review of past occurrences about Washington, M. T. Cooke). G. B. Grinnell records an observation wherein he "saw a Woodcock carry off a young one." While perfectly convinced of the accuracy of his deductions in the matter, every circumstance is carefully gone over so that the reader also may judge thereof. This renders the note a valuable contribution to a subject which is not new. J. R. Malloch describes a House Sparrow feeding a nest of young in the evening in the lighted front of a moving-picture theatre, on mayflies captured within the radius of the lights. T. Hallinan writes of 'Bird Interference on High-Tension Electric Transmission Lines.' E. A. Doolittle and E. von S. Dingle discuss the 'defense' note of Chickadees inside their nesting-holes. From some familiarity with the Horned Grebe in life, we would not consider 'salmon-buff' throat or upper breast a good criterion for sight identification of that species in fall and winter, as apparently used by one of the contributors.—J. T. N.

Book News

Houghton, Mifflin & Co., announce the early publication of the first volume of Dr. John C. Phillips' 'Natural History of the Ducks.' This important monograph will treat of the Ducks of the world and be fully illustrated with colored and black and white plates from drawings by Benson, Brooks, and Fuertes.

The Illinois Audubon Society (10 South La Salle Street, Chicago) has issued a pocket 'Check-List of the Birds of Illinois' by B. T. Gault, with Arthur A. Allen's 'Key to Birds' Nests' (reprinted from *BIRD-LORE*) which makes a most convenient field manual.

'Natural History' (Vol. XXII, p.235) contains an article by Francis H. Allen on 'Some Little Known Songs of Common Birds'

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Bird-Lore's Motto:

A Bird in the Bush Is Worth Two in the Hand

IN a preceding number of BIRD-LORE a brief comparison was made of the life and works of J. A. Allen and John Burroughs, two nature-lovers who, with essentially similar boyhoods and ancestral backgrounds, developed on wholly different lines. The death of W. H. Hudson arouses a desire to find his place in this notable trio of naturalists. It has been said that Hudson was the product of his environment, but if by this is meant that his interest in nature was the outcome of his early life on the Argentine pampas, the remark is far from the truth.

Like Allen and Burroughs, Hudson was born a nature-lover. Like them, also, he had brothers who were strangers to his tastes. His New England mother (for America may share with England pride in Hudson's achievements) alone seemed to understand his sympathy with birds, trees, and flowers, which without other encouragement, grew with his growth.

Living in a country whose birds were little known, he became, for a time, a collecting naturalist. Hundreds of specimens prepared by him are contained in our museums. Among a group on which we are now working, for example, we find three specimens collected by Hudson at Conchitas, about fifteen miles east of Buenos Aires in 1868.

This phase of Hudson's life ended with the publication (in conjunction with P. L. Slater) of his 'Argentine Ornithology.' Thereafter it was the sentiment rather than the science of bird-life to which he gave expression, and his subsequent publications,

like those of Burroughs, were of the literary rather than of the technical naturalist.

In their attitude toward nature, Hudson and Burroughs had much in common. Their differences were primarily those of temperament. Hudson's was the more sensitive nature and his greater introspectiveness was occasioned by a shyer, more retiring disposition. Burroughs' friends were a legion; Hudson had comparatively few, not because he was self-sufficient, as we imagine Thoreau may have been, but rather because he found few persons with whom he had real affinity.

To say that Hudson was not the product of his early environment does not imply that he was not profoundly influenced by it, for he was, and he continued to be throughout his life. Had Hudson remained in Argentina it seems doubtful if his powers would have reached that measure of development which placed him in the first rank of the writers of his day. But when in his young manhood he left Argentina for England he carried with him a surprising store of experiences the memory of which, as his youth receded, became increasingly dear and vivid. These mental pictures, idealized by the lapse of years, formed a background against which he viewed much of his subsequent life. We wonder whether Hudson had his boyhood on the pampas in mind when in 'A Traveller of Little Things' (1921) he wrote: "If we see a thing once or several times we see it ever after as we first saw it; if we go on seeing it every day or every week for years and years, we do not register a countless series of new distinct impressions, recording all its changes; the new impressions fall upon and obliterate the others and it is like a series of photographs, not arranged side by side for future inspection, but in a pile, the top one alone remaining visible."

Hudson reveals himself most fully in his autobiographical 'Far Away and Long Ago.' Written more than three score years after the events recorded in it occurred, it is a series of mental photographs, surprising in their detail, "arranged side by side." For keen self analysis of an exceptionally responsive, sympathetic nature, we commend especially his chapter on 'Animism.'

The Audubon Societies

SCHOOL DEPARTMENT

Edited by A. A. ALLEN, Ph.D.

Address all communications relative to the work of this department to the Editor, Cornell University, Ithaca, N. Y.

BIRD WALKS

On Christmas Day, or the day after, hundreds of observers will take to the woods and fields in search of birds. From Nova Scotia to British Columbia and from Florida to California, groups of bird-lovers will be seen starting out with field-glasses in hand to make BIRD-LORE's annual bird census. First suggested by Dr. Chapman in 1900, the Christmas Bird Census has come to international fame, and the pages of the January BIRD-LORE, where the various lists are reported, are eagerly scanned by bird-lovers the world over. Reports from the West Indies, South America, and Europe often arrive in time to be printed. Even in far-off Australia there will be interested bird students in the field who would love to exchange their lists and their observations with others on this side of the globe.

The bird-walk has become a delightful and wholesome practice, giving enjoyment to the most experienced ornithologists as well as those learning their first birds. At the same time, it helps to assemble records of considerable scientific value. The Christmas Bird Census, for several reasons, produces records of greater accuracy and, therefore, of greater scientific value than similar records made at other times of the year, but for the enjoyment of the observer, a census taken during the spring migration, among the nesting birds of summer, or with the drab birds of fall is equally interesting. Indeed, competition among observers during the spring, to secure the longest list of birds on a single walk, often ranges high, and the bird-walks become correspondingly exciting. It has never seemed advisable to print such lists in BIRD-LORE, but for the compilation of a local list of birds to show which species occur in a given region, where and when they are found, such records are invaluable. Summaries of several years' observations at a given place are often printed in *The Auk**, a journal with which all serious bird students should become acquainted. Bird students in the Middle West should likewise become familiar with the *Wilson Bulletin*† and those of the West with *The Condor*‡.

School teachers who start their bird-study with the Christmas or New

**The Auk*.—Organ of the American Ornithologists' Union. Quarterly. Each volume contains about 500 pages, a number of half-tones and, occasionally, colored plates. Subscription, \$4 per annum (free to members of the A. O. U.). Address, 1939 Biltmore St., Washington, D. C.

†*Wilson Bulletin*.—Quarterly. Organ of the Wilson Ornithological Club. Each volume contains about 225 pages and a number of half-tones. Annual subscription, \$1.50 (free to members of the W. O. C.). Address, Oberlin Ohio.

‡*The Condor*.—Organ of the Cooper Ornithological Club. Bimonthly. Each volume contains about 250 pages and numerous half-tones. Annual subscription \$2 (free to members of the C. O. C.). Address, Pasadena, Calif.

Year's bird-walk derive sufficient impetus from it to assure the interest of their pupils for the rest of the year. Of course, this is the period of school vacation, but for just that reason the children are freer to spend more time in the field. A school or class competition can be inaugurated to find the most winter birds, either in a single day or during the entire vacation. The combined lists of all will then form the start for a school bird calendar (see BIRD-LORE, March, 1920) which will maintain interest until the summer vacation.

For the benefit of any who cannot get out into the woods and fields themselves, or for those who wish to refresh their memories or those of their school children on the winter birds and where to look for them, the Editor of this department of BIRD-LORE will outline the bird-walk which he, himself, takes each Christmas or New Year's Day. The birds which he sees in central New York state will not be exactly the same as those which his friends in the South or West will see; there will even be some differences in the Middle West, but the winter birds are remarkably uniform throughout the northern states, varying chiefly in relative abundance.—A. A. A.

A CHRISTMAS WALK WITH BIRDS

It is a gray morning, the day after Christmas. Ever so lightly the feathery snow crystals drift downward and falter as they meet the branches of the mulberry tree by the window. But it is cold; they do not cling to the branches, but sift down to join their fellows in a quilt inches deep on the lawn and on the



"MERRY CHRISTMAS, MR. CHICKADEE"

Photographed by A. A. Allen

feeding-shelf at the window. The birds' 'Christmas tree' is well laden, but a rift in the smooth snow blanket covering the shelf shows where an early Junco has been scratching for the seeds that he has learned to expect so regularly.

We hasten to sweep away the snow and scatter fresh 'chick-feed' for the Juncos and Tree Sparrows and sunflower seeds for the Chickadees and Nuthatches. We brush off the suet holder on the upright stub at one end of the shelf, only to find that it must be replenished for the hungry Woodpeckers. We get a doughnut from the pantry and hunt for an old pancake to put out for the Blue Jays. Our bird-walks always begin at home and the more birds we can see while at breakfast, the longer our list will be, and this is the day for the Christmas Bird Census. The celebrations for the kiddies the day before prevented our going on Christmas day, and we have set aside the 26th for a good old-fashioned hike across the fields and through the woods.

What an ideal day we have for a walk! The snow stops falling while we are at breakfast and the air clears until the distant hills are once more visible. Fortunately, clouds still veil the sun and we will not have the discomfort of its bright light reflected from the snow to our eyes. Were we hunting spring birds, we would have started soon after daylight, but the winter birds do not become active until the sun is well above the horizon and from then on they remain active throughout the day.

Before breakfast is over, our bird-list is well started. The Chickadees announce the arrival of the first troop by their tinkling conversational notes and a scolding *chick-a-dee-dee*. The *yank-yank* of a Nuthatch tells us that he is close by, and the sharp Robin-like call of a Hairy Woodpecker proclaims that he will have his breakfast of suet before the Downy this morning. Soon



TREE SPARROW
Photographed by G. A. Bailey

our window cafeteria is in full swing, and we can scarcely keep the children at the table, so anxious are they to climb to the broad window-sill and look into the beady black eyes of the hungry birds. The sunflower seeds seem to be the first choice of the Chickadees, and although there are plenty scattered over the shelf, and there are a dozen Chickadees and Nuthatches about, it is seldom that more than one comes to the shelf at a time. Sometimes a Chickadee hops to the edge of the shelf with a seed in his bill and, after tucking it under both feet, proceeds to hammer it open. At such times others will sneak in behind him and carry off the seeds, but more often they wait and each takes his turn. The Nuthatches are thrifty and believe in laying up a store against the time when the cafeteria proprietors may close the doors, and so, grasping two or three seeds at once, they fly to the elm and tuck them into the crevices of the bark. At first, when they are hungry, they hammer them open, but soon they are content to carry and hide and hide and carry. Last spring one of the seeds that had been hidden in the bark during the winter germinated and produced quite a sizable plant before it died from lack of nourishment. The little Chickadees are also provident, and they find the tiniest crevices in twigs and weed-stems in which to hide their seeds.

Next comes the old Hairy Woodpecker. With a swoop he lands on the far side of the suet stub, and, with a flirt of his head, looks first to one side and then to another. If anything alarms him, he clings, immovable as though frozen, to the bark, but if all is safe, he sidles around the stub with short hops until his full profile is visible to us. Then, after another pause, he climbs jerkily up to the suet which we have arranged on the window side of the stub. There is no difficulty in distinguishing the Hairy from the Downy at this distance, for the pure white outer tail-feathers are quite distinct and his larger size is very appreciable. Later on we may have some trouble when we see the bird at a distance too great to see the tail-feathers or to judge the size. Just to remind us of the great difference in size along comes the Downy and alights on the opposite side of the stub, and when we have them both together we wonder why anyone ever confuses them.

Next comes the Tree Sparrow, and he settles down in one spot on the shelf and proceeds to gorge himself on the cracked wheat and millet. Even the children know it is a Tree Sparrow for, as it faces the window, the single dark spot on its plain fluffy breast shows very distinctly. The *chimp-chimp* of a Song Sparrow in the hedge and the distant *jay-jay* of a Blue Jay tell us that other visitors will soon be coming, but it is high time we started on our walk.

We plan our course so as to cover as diverse types of country as possible, following up our ravine until we come to the open fields, then along hedge-rows and past the old orchard to the sugar-bush, through the sugar-bush to the hemlock woods, and then down to the frozen swamp and the lake-shore. The crisp air adds zest to our steps, and we are glad that there are no birds to stop us until we get warmed up. It seems that all the birds of the ravine have

gathered about our feeding-station, for we hear not another sound until we surmount the hill and come to the open fields. Then a rolling twitter overhead attracts our attention and we see a little cloud of Snow Buntings swirling over, their white breasts and broad white patches in their wings giving them the appearance of a veritable snow-flurry. The illusion is heightened when, with a broad sweep, they wheel and settle down on an adjacent field where we can see other dark-colored birds feeding among the weeds that project above the snow. There were several darker birds among the Buntings and we hasten on in the hope of discovering some of the rare Lapland Longspurs that sometimes stray into our part of the country with the Buntings. We are doomed to



PRAIRIE HORNED LARKS—MALE AND FEMALE
Photographed by Verdi Burtch

disappointment, however, for when we sneak up behind the old rail-fence and get our glasses on the flock, we discover that they are Horned Larks. The Prairie Horned Lark is the common one with us, though occasionally the eastern 'Shore Lark' visits us in winter, and so we scan the flock very carefully to see if some of the birds are not yellower above and behind the eye. There is much difference in the amount of yellow on the throat of the birds we are watching but this is apparently indicative only of age or sex. They are all gray above and behind the eye, and we have to be content to add but two species to our list. The Snow Buntings, likewise, show considerable variation in the amount of brown on their heads and backs, though none of them is as distinctly black and white as all will be in the spring when the brown veiling of the feathers wears off. They are rather erratic in their movements and suddenly, without the slightest warning, as though by some innate understanding, the whole flock of Buntings and Larks brisks off, mingling their twitters and sharp *tse-tse* notes.

We continue down the fence-row and soon hear the convivial notes of a

flock of Tree Sparrows feeding about the weeds and briars at the edge of a little run. They are always cheerful, and even on this gray morning indulge in little snatches of canary-like song expressive of their good will, though far from the varied strains that they will take back to Hudson's Bay with them next April. On the opposite side of the little gully are some alders, and just as we discover a flock of small, dark-colored birds feeding on the catkins, they are off with an excited chatter that pronounces them Redpolls. Why they should



A WINTER ROBIN FINDING FOOD ON THE SUMACH, "THE
TREE OF LAST RESORT"

Photographed by A. A. Allen

be so wild at this time of the year when they are so tame in the spring, I have yet to discover, and my fondest hopes of discovering Greater Redpolls or Hoary Redpolls among them are always shattered by having them depart thus wildly before I can get a good look at them. We write down just plain 'Redpoll' and continue to think that some looked larger and some much lighter colored than the rest and wonder if after all, all three subspecies were not represented in the flock.

Now we come to the old orchard. A few frozen apples still cling to the trees, and we hope to find a flock of Cedar Waxwings or at least a few Starlings

but luck is not with us. Even the hollow tree that has always sheltered a Screech Owl stands empty. A sharp call from a thick patch of sumac at one side of the orchard, however, gives us a start. It has such a familiar sound, yet one that we have not heard for so long that at first we do not recognize our old friend 'Cock Robin.' All his relatives left over a month ago, but this daring bird had apparently determined to brave the winter and eke out his living from the sumac bobs, the frozen apples, and the blue berries of the red cedars which cover a sheltered hillside just beyond. His red breast is veiled by the gray tips of the feathers, and he is by no means the tame, confiding, and conspicuous bird that frequents our lawns during spring and summer. Indeed, we get but a glimpse of him as he darts off through the thicket; he is wilder than the Redpolls.

The hillside covered with junipers yields us nothing new, though it is crossed and recrossed by the tracks of a cock Pheasant and at least two hens. Molly Cottontail has apparently played tag here with several of her friends, though most of the tracks are concealed by the snow of the early morning. So, we continue on to the woods beyond and soon are scanning the trunks of the maples for the owner of the shrill sibilant voice that we heard as we climbed the fence. It sounded like a Brown Creeper but since Golden-crowned Kinglets and even Chickadees have notes which are quite similar, we search until we find our bird. At last a flake of bark apparently flips off from the trunk of a big maple, 30 feet from the ground, and sails down to the base of an adjacent tree, and we know that we have found the Creeper. Upward he goes on his never-ending search for insects, spiralling around the trunk and never stopping. We station ourselves near an adjacent tree in the direction in which he seems to be trending, and, sure enough, after spiralling nearly to the top of his tree, he glides down to the base of the tree where we are standing, barely missing us in passing. Either he has become near-sighted from "keeping his nose to the grindstone" or else he is lacking in fear or common sense, for he pays not the slightest attention to us but continues on his spiral course almost within arm's length. He is not alone, we soon realize, for we hear the notes of



A BROWN CREEPER ATTRACTED BY
SUET FROM HIS HOME IN THE OAK
GROVE TO THIS STUB BY THE WINDOW

Photographed by A. A. Allen

three or four others which seem to be following through the woods in the same general direction. Apparently they are tagging a little flock of Nuthatches and Chickadees and Downy Woodpeckers that have already passed by and whose notes we can hear in the direction in which the Creepers are moving. They

are traveling toward a stand of hemlock, a likely place for other birds, so we follow also.

Beneath the hemlocks the snow is covered with small cones from the branches above. Squirrels or birds have been having quite a repast, but apparently, all is quiet now. We search the branches in vain and are about to decide that the red squirrels are responsible for the cones when a cheeping sound at the far side of the grove attracts our attention. We hasten to that side just in time to see a flock of a dozen or more dark Sparrow-like birds hastily leaving the higher branches. They swing together into a compact flock, making a clicking sound as they go, and are apparently bound for distant parts, when, suddenly, they swing on the arc of a big circle and are back in to the same tree almost as suddenly as they left. Now we get a good look at them as they crawl along the branches and we discover that they are White-winged Crossbills. Most of



A WHITE-WINGED CROSSBILL RESTING
BETWEEN HIS ATTEMPTS TO EAT SUET
AS HE WOULD THE SEEDS OF CONIFERS

Photographed by A. A. Allen

them are greenish females or immature birds but several are dull red males. We watch them as they snip off the small cones; and then, holding them upside down beneath their feet, insert their curiously crossed bills and with their tongues scoop out the seeds that lie in the axils of the scales. At times they are silent but again they indulge in excited chipping or in plaintive cheeps. They seem not the least bit afraid of us but all of a sudden they are off, like the Redpolls.—A. A. A.

(To be continued)

QUESTIONS

1. Do you feed the winter birds at your window? If not, why not?
2. What food would you supply for Juncos, Tree Sparrows, Nuthatches, Chickadees, Woodpeckers, Blue Jays?

3. Where would you look for Snow Buntings and Horned Larks? What is their natural food?
4. How different are the Snow Buntings during winter and summer? How does this change take place?
5. Where would you look for Tree Sparrows and how would you recognize them?
6. Where would you look for Redpolls? Describe one of their calls.
7. What birds feed upon frozen apples?
8. How do Robins differ in winter and summer? Where are most of the Robins during the winter?
9. Where would you look for Brown Creepers, what do they look like, and how could you recognize them from their habits?
10. Where would you look for Crossbills? How do they get their food?

FOR YOUNG OBSERVERS

BIRD-STUDY IN AUSTRALIA

A letter from Mr. Charles Barrett, the Editor of *Pals*, an Australian nature magazine, tells us of the deep interest which boys and girls in Australia are now taking in the study of birds and of their interest in America's activities on behalf of birds. He has sent us a list of boys and girls in Australia who would like to correspond with others in this country about their experiences with birds. It seems to us like such an unusual opportunity for our boys and girls to hear about a wonderful region at first hand, where the birds are so different and yet so like our own, that we are going to publish the list of names in BIRD-LORE. We feel confident that there are many bird-lovers among our young readers who would enjoy such correspondence and we do not hesitate to recommend to teachers that they encourage their pupils to write such letters. The letters might well be counted as English or geography lessons.

Mr. Barrett likewise suggests that if we will forward the names of young Americans who would like to correspond with bird-lovers in Australia and New Zealand, he will be glad to publish their names in his magazine. If there are any boys and girls who hesitate to take the initiative in writing to any of the names here published and would prefer to have their names published over there, if they will send them to the Editor of this Department, he will see that they get to the Editor of *Pals*.

LIST OF CORRESPONDENTS

- EDITH M. GURR, 224 McKillop Street, Geelong, Victoria, Australia.
 JOSEPH B. RAYMOND, Camp Hill, Forbes, New South Wales, Australia.
 REGINALD VICKERY, Post Office Box 55, Cunnamulla, Queensland, Australia.
 KEITH R. V. MACANDREW, 70 Cambell Street, Wollongong, New South Wales, Australia.
 R. J. MOY, 26 Joseph Street, Ballarat East, Victoria, Australia.
 ARTHUR G. TRIST, Wick Street, Deniliquin, New South Wales, Australia.
 H. WHITE, Moore Street, Rochester, Victoria, Australia.
 ARTHUR H. F. O'NEILL, State School, Costerfield, Victoria, Australia.
 GERALD J. RYAN, "Sunnyside," Gordon, Victoria, Australia.

ALAN VOISEY, Nambucca Street, Macksville, New South Wales, Australia.

E. MORTON TROTTER, Port Macquarie, New South Wales, Australia.

ERNEST MCKAY, Main Drain, Koo-Wee-Rup, Victoria, Australia.

A. H. SMOUT, Gladstone Road, South Brisbane, Queensland, Australia.

JAMES BRITTINGHAM, "Booroolia," Wee Waa, New South Wales, Australia.

T. E. DEWAR, 149 Beaconsfield Road, Croxton, Victoria, Australia.

D. AKINS, Main Street, Stawell, Victoria, Australia.

R. H. ELLIS, "Othello," 92 Story Street, Parkville, Melbourne, Victoria, Australia.

BERNARD CHAPMAN, "Osborne House," Osborne Grove. Preston, Victoria, Australia.

A WINTER HIKE

One day in December, when the ground was covered with snow, Mother, Victor, and I went on a hike. We went down to Song Sparrow Valley. We named this valley after the Song Sparrows because there were so many there last summer.

As we were walking along the creek, a male and female Redpoll flew right in front of us and lighted in the snow. The tops of their heads were red. They were grayish birds and lighter beneath. The male had a rosy breast with dark streaks. The female had dark streaks on her breast but no red.

We walked up the creek a little farther and then we saw a flock of Redpolls feeding on weed seeds, and how they did twitter as they fed! As we went along two Blue Jays flew over the creek and we heard a Crow cawing. We saw a Downy Woodpecker and we flushed a Partridge, and on the snow we could see many Bob-white and Prairie Chicken tracks.

These are the birds we have learned this winter—the Redpoll, the Evening Grosbeak, the Bohemian Waxwing, and the Snow Bunting.—LIDA HODSON (age 9 years), *Anoka, Minn.*

RESCUING A SLATE-COLORED JUNCO

We had a heavy snowstorm on April 16 and 17. The snow was 3 to 4 feet deep. When I went out on the porch Saturday morning I found a Slate-colored Junco there. I took it into the house and gave it some crumbs and water. It ate the crumbs and drank some of the water. It had no tail. The next morning I let the little bird go. On Monday it came back. It sat on our door-step again. Then I put crumbs out; it took some of the crumbs and flew away.—MILTON DIAMOND (age 10 years, Form III), *Mikwaukee, Wis.*

[Perhaps Milton maintains a feeding-table for birds regularly now and saves the lives of many birds. Birds always come back, as did this Junco, when they find food and are kindly treated. Perhaps this Junco will come back to the door-step again next April. In January, 1921, the Editor placed aluminum bands on the legs of three Tree Sparrows which came to his food-shelf. In January of 1922 he recaptured all three of them in the same Sparrow trap set below the same food-shelf.—A. A. A.]

HOW ROBINS GIVE PLEASURE TO MILWAUKEE BOYS

A ROBIN'S NEST

One May morning I went into the yard to see if I could find any birds' nests. I soon came upon a nest in a bush only about 5 feet from the ground. It was made of mud, dried grass, and horse hair. A Robin flew into it. A few days later there were four blue eggs in the nest. I watched the nest every day and soon there were four little Robins in it. They were very ugly looking because they did not have any feathers. I took worms and bread crumbs every day and laid them somewhere near the nest. The mother bird would get them and feed her babies, until at last they flew away from the nest. I saw them almost every day after that somewhere around the house.—TEDDY BANGS (Form V), *Milwaukee, Wis.*

MOVING A ROBIN'S NEST

We are building a new house in the country and a Robin had built a nest above the door of a closet. When the plasterers wanted to plaster there were little Robins in the nest. While the mother Robin was away from the nest the plasterers took it down and put it under a bush out-of-doors. When I came out to look at our house after school the mother was looking for her young. I saw her and dug some worms. When I came near the nest the young Robins would open their mouths so I dropped some worms in. The next time I went into the country I saw the mother Robin feeding her babies in the nest under the bush.—LUDINGTON PATTON (Form V), *Milwaukee, Wis.*

A CLOSE VIEW OF A ROBIN

One afternoon in May I was reading 'The Boys of '76' in my yard. I was so interested that I sat perfectly quiet. After reading for some time I raised my eyes just a tiny bit and saw an immense Robin very near to me. It had just rained and there were a great many worms about and the Robin was busy eating them. He did not see me and I watched him until he got within 2 inches of my foot. Then a dog came and scared him away.—JACK KELLOGG (Form V), *Milwaukee, Wis.*

[These boys' experiences with Robins clearly indicate how even the commonest birds will give pleasure to anyone who will observe them closely.—A. A. A.]

A HINT TO BIRD-STUDY CLUBS

Officers of Bird Clubs who find difficulty in securing suitable papers for their meetings will do well to consult the Annual Booklet of the Hartford (Conn.) Bird Study Club, for the season of 1922-23. From September 16, 1922, to June 16, 1923, this Club plans to hold 47 meetings and the program for each one is announced in this publication.

The Audubon Societies

EXECUTIVE DEPARTMENT

Edited by T. GILBERT PEARSON, President

Address all correspondence, and send all remittances, for dues and contributions, to the National Association of Audubon Societies, 1974 Broadway, New York City. Telephone, Columbus 7327

T. GILBERT PEARSON, <i>President</i>	
THEODORE S. PALMER, <i>First Vice-President</i>	WILLIAM P. WHARTON, <i>Secretary</i>
FREDERIC A. LUCAS, <i>Second Vice-President</i>	JONATHAN DWIGHT, <i>Treasurer</i>
SAMUEL T. CARTER, JR., <i>Attorney</i>	

Any person, club, school or company in sympathy with the objects of this Association may become a member of it, and all are welcome.

Classes of Membership in the National Association of Audubon Societies for the Protection of Wild Birds and Animals:

\$5 annually pays for a Sustaining Membership
\$100 paid at one time constitutes a Life Membership
\$1,000 constitutes a person a Patron
\$5,000 constitutes a person a Founder
\$25,000 constitutes a person a Benefactor

FORM OF BEQUEST:—I do hereby give and bequeath to the National Association of Audubon Societies for the Protection of Wild Birds and Animals (Incorporated), of the City of New York.

EIGHTEENTH ANNUAL MEETING

On the night of October 30, the first session of the eighteenth annual meeting of the National Association of Audubon Societies was held in the American Museum of Natural History, New York City. The President welcomed the members, friends, and visiting delegates, and reported on some of the larger results of the year's activities. Following this he spoke on bird-protection in Europe and America. His remarks were illustrated with colored slides made from photographs by him and others while on a trip to Europe last spring. Ernest Thompson Seton addressed the meeting on the 'New Era in Wild Life.' He referred to the generally accepted fact that the large wild game animals of the world are due to ultimate extinction, with the exception of those species that may be preserved on the scattered reservations. He also told some wild-bird and animal stories in the entertaining manner for which he has long been famous.

Dr. Frank M. Chapman spoke on 'Bird Photography Past and Present.' Dr. Chapman was one of the very first naturalists in this country to teach the lessons of natural history by means of the camera, and his notable achievements in this direction many

years ago exerted a large influence in developing the great interest in wild-life photography which exists today. He showed colored slides made from a number of his early attempts, and some of these dealing with Flamingoes of the Bahama Islands would be regarded as marvelous bird pictures had they been made only yesterday. His address was followed by two reels of new motion pictures by William L. and Irene Finley. These revealed intimate and humorous scenes in the life history of the 'Opossum,' 'Barn Owl,' 'Gray Fox,' 'Water Ouzel,' and other forms of western wild life.

The business meeting was called to order in the Academy Room of the Museum at 10 o'clock, on the morning of October 31. The Association was formally welcomed by Dr. Frederick A. Lucas, Director of the American Museum of Natural History. William P. Wharton, and Dr. Frank M. Chapman, whose terms as officers of the Board of Directors had expired, were re-elected for the term of five years. Twenty-nine members of the Advisory Board were all re-elected, the vacancy caused by the death of Howard Eaton being filled by the election of George Finley Simmons of Austin, Texas.

The reports of the President, Treasurer, and Auditing Committee were presented and afterward discussed by Dr. Theodore S. Palmer, of Washington, and others. Verbal reports of the following field agents were then given: Herbert K. Job, Miss Frances A. Hurd, E. H. Forbush, Arthur H. Norton, Mary S. Sage, and Winthrop Packard. The President called for members of affiliated organizations to arise and state their names, and indicate the societies or clubs they represented. The muster roll was responded to as follows: Groton (Mass.) Bird Club, Mr. and Mrs. William F. Wharton; District of Columbia Audubon Society, Dr. and Mrs. T. S. Palmer; New Haven Bird Club, Herbert K. Job; Massachusetts Audubon Society, Mr. and Mrs. Winthrop Packard; Connecticut Audubon Society and Westport Nature Club, Frances A. Hurd; Massachusetts State Grange's Committee on Protection of Wild Birds, Mrs. E. O. Marshall; Cumberland County Audubon Society, Arthur H. Norton; New England Bird-Banding Association, E. H. Forbush; New Jersey Audubon Society, Newark Bird Club, and Englewood Bird Club, Beecher S. Bowdish; Los Angeles (Calif.) Audubon Society, Mrs. William Clarke Brown; Audubon Society of Irvington-on-Hudson (N. Y.), Mrs. George Cummings; Montclair (N. J.) Bird Club, R. H. Howland; Long Island Bird Club, Robert Cushman Murphy; Rhinebeck (N. Y.) Bird Club, Maunsel S. Crosby.

It was found that representatives of some other affiliated clubs who were present the evening before had not yet arrived in the hall. At 12.30 the meeting adjourned to the front of the Museum where a photograph was taken by a representative of the Photo News Service of New York. All then repaired to the Mitla Restaurant for luncheon as guests of the Association.

At 2 o'clock the usual educational conference was held, under the leadership of Edward H. Forbush, and animating discussions occupied the time until a late hour. Many gathered at the Endicott Hotel for dinner at 7 o'clock. In the afternoon there was also held a meeting of the Board of Directors at which there were present: Mr. Pearson, Dr. Palmer, Dr. Chapman, Dr. Lucas, Mrs. Wright, Miss Meyer, Dr. Murphy, Dr. Dwight, Mr. Wharton, and Mr. Carter, the Counselor.

The budget for the coming year was worked out and adopted. J. D. Corrington of the University of South Carolina was added to the list as field agent. The officers were all re-elected for the coming year. Report was made by the counsel on the securities of the Endowment Fund. The Board was in session most of the afternoon.

These annual meetings are always the occasions for the getting together of workers in the field of wild-bird and animal protection, and they are greatly enjoyed by those who find it possible to be present.

REPORT OF THE SCRANTON (PA.) BIRD CLUB

Under the excellent leadership of its president, Mrs. Francis Hopkinson Coffin, the Club has had a most profitable year in keeping before the people of Scranton the necessity of a real interest in birds and their protection. We had attractive exhibits at the expositions of the Scranton Industrial Society and of the Scranton Florists' Association, giving out on the occasion specially prepared pamphlets which had been compiled by Mrs. Coffin.

To increase the interest among small children there was the Birds' Christmas Tree festivity, given by the Juniors, which has

become an annual affair under the special supervision of Miss Elizabeth Rice and Miss Helen Hay. As usual, a Christmas Day Census was conducted by the president of the Club. Weekly bird-study classes were held during January and February. The large enrollment and the high average attendance proved the popularity of these classes. The Club is most grateful to the special Club members and to the Merit Badge Scouts for their valuable assistance on the program and to R. N. Davis, particularly, for so successfully carrying on the classes for a period of six weeks.

In March, under the auspices of the Bird Club, Henry Oldys gave an illustrated lecture before a crowded auditorium. According to the Club's custom, early morning walks, under well-chosen leaders, were conducted during the spring migration period. The growing interest in the opportunity for bird-study, afforded by these walks, was very

evident by the large registration. The week of May 15 was the crowning one when, for the entire week, the morning and afternoon walks were conducted by Henry Oldys whom the Club had engaged for one week's activities in the interest of our members and our bird friends.—(Miss) ELEANOR P. JONES, *Secretary*.

GOURDS FOR BIRD HOUSES

Many a bird has looked up in surprise at the house tendered to him by kindly hands, but which carried the suggestion of artistic design to a point beyond taste on the part of the bird.

Some years ago, when in the South, I observed that many people successfully attracted Martins by hanging up a group of bottle-gourds in which holes of the proper size had been cut. Some of these gourds were brought north and hung about in the trees on my country place in Stamford, Conn. It was at once apparent that birds seemed to recognize the gourd as natural objects and seemingly chose these in preference to any of my other bird-houses, even the ones which had been disguised with bark and branches.

My first experience in raising gourds at Stamford resulted in practical failure. The vines were grown upon trellises and given ordinary care and attention in ordinary soil. The fruits matured so late that frost nipped most of them and the ones which developed a sufficiently hard shell to serve for houses were, for the most part, too small for anything excepting wrens and chickadees. In the following year I started gourds in pots in the coldframe in order to give them a longer fruiting season, but still did not succeed in getting fruits like those which grew in gentler climes.

My final method is successful. A gourd vine is a pig for nourishment. Well-drained soil seems to be essential and this prepared in the previous autumn by burying manure, garbage, or leaf-mold where the gourds are to grow. In the spring seeds are planted in rather large pots and started in the coldframe so that the young plants are well under way by the time when it is safe to set them out,

about the second week in May, after all danger of late frost has passed.

Transplanting is done without disturbing the gourds, by gently tapping the pots until earth and plant come out in one mass, which is then planted in the rich ground. The plants may be trained along walls or may be set in a circle along a framework of bean poles arranged wigwam style. Fences may be employed also for gourd vines which are wonderful climbers, a single plant sometimes exceeding 40 feet in length and with side branches amounting in all to perhaps 100 feet of vine per plant.

There are many varieties of gourds but the bottle gourd and the dipper gourd types are the ones which I have found best up to the present time. Seeds may be obtained from any dealer in garden seeds. For the best effect it is well to keep the ground about the plant well cultivated and properly watered or mulched. The gourds to be used for bird-houses will vary in sizes from those suitable for Wrens, Chickadees, Bluebirds, Nuthatches, Martins, and Great Crested Flycatchers, up to the sizes suitable for Flickers, Screech Owls, Barred Owls and Wood Ducks.

When preparing gourds for bird-houses they may be first set in a dry place in the barn until wintertime. A hole is then cut in each gourd, of the size for the sort of bird to which the house is to be offered. Seeds and other contents of the interior of the gourd are scooped out through the hole, leaving only a hard shell. It is essential to make a small drill hole in the bottom of each gourd in order to allow rain-water to escape. Suspension is made after drilling a hole in the top of the gourd which will allow the introduction of a copper wire. This copper wire

will last indefinitely. I do not as yet know the life of the gourd bird-house, but it will remain good without attention when exposed to all of the weathers for many years. The gourd which is on a tree for three or four years often becomes covered with some of the lichens or molds, which make it still more like a natural object from the bird's point of view, but which do not seem to injure the very hard shell.

Aside from the utility of gourds for bird-houses, the plants themselves are stimulating objects of beauty in the garden because of

their vivacious enthusiasm of growth. The flowers are among the most beautiful of all garden flowers, although not commonly classed in that group because their delicacy is smothered by the valiant mass of great leaves. A single gourd flower with its long stem, cut in the early morning and placed in a vase with some narrow leaf like that of iris has decorative value of such high quality that it evokes expressions of surprise from flower-lovers who are visitors at my country home in Stamford Connecticut.—ROBERT T. MORRIS.

NEW LIFE MEMBERS

Enrolled from July 1 to November 1, 1922

Abercrombie, David T.
Ames, John S.
Baring, Thomas
Barton, Mrs. F. O.
Bentley, Mrs. Cyrus
Blanchard, Annie K.
Bole, Ben P.
Bradford, Mrs. Elizabeth F.
Bromley, Joseph H.
Bruce, Mary A.
Burrows, Mrs. W. F.
Chapman, Mrs. John Jay
Church, E. D.
Clapp, George H.
Cobourn, Louise H.
Converse, Mary E.
Coyle, Mrs. John E.
Crosby, G. N.
Dunham, Arthur Louis
Dunlap, D. A.
Dunn, Mrs. George B.
Eastman, Mrs. L. R.
Edwards, Elizabeth S.
Falconer, J. W.
Forbes, William S.
Fowler, Angela
Gates, Mrs. John
George, Mary J.
Goodwin, Mrs. H. M.
Gray, Matilda Geddings
Hamilton, Elizabeth S.
Hill, Dr. William P.
Hinchliff, Mrs. Wm. E.
Hunt, Ella M.
Hunt, Emily G.
Keep, Mrs. Chauncey
Laimbeer, R. H.
Lippincott, Mrs. M. M.
Lloyd, Mrs. John Uri
Loughran, Mrs. M. F.
Lowell, Mrs. A. Lawrence
Luchsinger, Mrs. F. B.
Lyman, Mabel

Marrs, Mrs. Kingsmill
Marshall, Mrs. E. O.
Marshall, W. A.
Matheson, Mrs. W. J.
Mitchell, W. S.
Montgomery, Mrs. Leila Y. P.
Moody, Mrs. Samuel
Moore, Katharine T.
Morris, Miss L. T.
Moses, Mrs. James
Mosman, P. A.
Peirson, Walter, Jr.
Proctor, William
Pyne, Mrs. M. Taylor
Randolph, Mrs. E.
Reed, Mrs. Geo. W.
Ripley, Miss J. T.
Robbins, Ida Elizabeth
See, Alonzo B.
Siedenburg, Mrs. R. Jr.,
Spreckels, A. F.
Stearns, William S.
Stillman, Liska
Strader, Benjamin W.
Swartz, E. G.
Taber, Mary
Thomas, Landon A.
Torrance, Mrs. Francis J.
Tower, Florence E.
Tuttle, Jane
Tyler, Mrs. W. G.
Vandeneer, Eudora G.
Vanderbilt, Laura
Van Sinderen, Mrs. A. J.
Van Wagenen, H. W.
Van Wagenen, Mrs. H. W.
Van Wyck, Philip V. R.
Vickery, Mrs. H. F.
Wallace, Mrs. Lindsay H.
Wheatland, Mrs. Stephen G.
Wilcox, Mrs. Fred'k P.
Wood, Mrs. William M.

NEW SUSTAINING MEMBERS

Enrolled from July 1 to November 1, 1922

- Adams, Miss Pamela S.
 Ailes, Milton E.
 Amos, Master John Waldo
 Appleton, Wm. Sumner
 Armstrong, Newton
 Atwood, Kimball C.
 Averett, Miss Bettie
 Bachia, Robert
 Ballantine, Mrs. Robert F.
 Ballard, Mrs. Eugene S.
 Bayer, Edwin S.
 Benson, R. D.
 Berry, Mrs. John McWilliams
 Bevin, Mrs. A. Avery
 Bingham, Mrs. Hiram
 Birchall, Katharine H.
 Boetticher, Oscar
 Brazier, E. Josephine
 Brewster, E. F.
 Briggs, George
 Brooks, Gerald
 Buck Hill Nature Club (The)
 Butler, Miss Genevieve
 Callaway, Fuller E.
 Cameron, Miss Janet L.
 Cammann, Oswald N.
 Card, Miss Helen L.
 Carter, G. C.
 Chalmers, Arthur A.
 Chapman, Miss Mary
 Clippert, Charles F.
 Cole, John L.
 Collier, D. R.
 Copeland, Henry
 Copeland, S. B.
 Cross, A. E.
 Cummer, A. G.
 Darlington, Geo. E.
 Day, Arthur P.
 Dennis, Mrs. A. L.
 Deutsch, Joseph
 Dexter, Mrs. Franklin B.
 Dines, T. A.
 Earee, Thos. W.
 Easton, Miss Mary Ella
 Eberhart, Mrs. F. G.
 Emmerich, Edward E.
 Everett, S. A.
 Ferguson, Alcorn
 Ffolliott, Miss Millicent
 Fisher, C. L.
 Forbes, Mrs. Alexander
 Gereke, Mrs. E. G.
 Gillett, Dr. Henry W.
 Ginn, Mrs. F. H.
 Gladwin, Sidney M.
 Greer, Miss Edith LeB.
 Gurley, Mrs. W. F.
 Hardt, Emil
 Hardy, Richard
 Hartford, George H.
 Hawley, Theodosia deR.
 Hayden, Brace
 Herrin, William F.
 Hesston Audubon Society
 Heyworth, James O.
 Hills, Robert H.
 Hitchcock, H. H.
 Houghton, A. Seymour, Jr.
 Huntington, Mrs. Howard
 Hurlburt, Frederick B.
 Jackson, Charles
 Jackson, Mrs. R. B.
 James, Norman
 Johnson, Corydon S.
 Johnston, Charles E.
 Kellar, Chambers
 Kimball, Mrs. Paul W.
 Kincaid, W. W.
 Klaber, Mrs. Maurice
 Lamb, Misses Ellen and Anna
 Laws, Dr. Claude E.
 Leahy, Mrs. Mary M.
 Lehman, F. F.
 Lockwood, Mrs. Eliz. C. W.
 Lodge, Mrs. Edwin
 Lyons, Clayton
 McLean, Mrs. W. E.
 Mackenzie, Judson C.
 Matthiessen, Mrs. C. H.
 May, Miss A.
 Mead, D. Irving
 Mead, George W.
 Metcalf, John R.
 Middaugh, Henry G.
 Migel, Miss Elisa Parada
 Mitchell, Charles T.
 Morrill, Sidney A.
 Morris, Dr. Charles G.
 Mount, C. K.
 Neff, Miss Grace
 Norton, Miss M. Helen
 Ortega, James L.
 Peterson, Charles S.
 Pfeiffer, Jacob
 Plant, Miss Caroline
 Post, Mrs. W. F.
 Prentiss, Mrs. F. F.
 Pulitzer, Seward Webb
 Rankin, John J.
 Ritter, Charles H.
 Roy, Miss Esther Belcher
 Reubens, Mrs. Chas.
 Rumbaugh, John B.
 Russ, Mrs. E. C.
 Rust, J. C.
 Saginaw Branch American Association
 of University Women
 Sawyer, Edgar P.
 Schuette, August
 Schwill, Mrs. J.
 Schwanda, Henry T.

NEW SUSTAINING MEMBERS, continued

Scott, George E.	Theyer, Sydney
Scott, J. T.	Thomas, Percival
Scovill, Dorothea H.	Van Allen, Miss Betty
Sefton, J. W., Jr.	Van Husan, Mrs. E. C.
Severance, F. W.	Vial, Mrs. Geo. M.
Sharp, James	Voss, Fred W.
Shaw, Miss Joanne B.	Walker, Miss Miriam Dwight
Simmons, Parke E.	Walker, Roberts
Sloane, Henry T.	Wallin, Dr. Marie E.
Sloane, Miss Margaret	Walter, Mrs. I. N.
Small, Mrs. A. E.	Warren, Mrs. Walter
Smith, Arthur W.	Waters, Miss Esther
Smith, Edward A.	Watkins, Mrs. W. T.
Starbuck, Mrs. G. F.	Way, Bayard C.
Starr, Frederick R.	Webb, Wm. Seward
Stebbins, Mrs. Fred J.	Welch, A. A.
Stephenson, Robert S.	Whitaker, F. B.
Stern, Albert	Whitehall, Robert L.
Stillman, Mrs. Ernest G.	Wilder, Charles P.
Stillman, Miss Jane	Winters, Miss Katharine
Stirn, Louis A.	Wolfskill, Julian
Suiste, Miss Ella Hartt	Wood, Bernard Henry, 3d
Swartz, Nicholas	Young, E. M.
Thayer, S. Willard	

ANOTHER BIRD SANCTUARY

Through the untiring efforts of Dr. John Warren Achorn and other members of the Sand Hill Bird Club, the town of Pine Bluff, North Carolina, has been declared a bird sanctuary. This action was taken by the Board of the Commissioners on November 6, 1922. The town and its environs run north and south one mile, and east and west a mile and a half. It is bounded by streams on three sides, and has two artificial lakes within the

corporate limits. The streams and lakes are surrounded by evergreens. There are also several branches and small creeks bordered with low evergreens, shrubs and vines, which afford ample cover for ground-loving birds.

Pine Bluff is very popular as a winter resort, and here is played throughout the winter the game of "bird golf" which Dr. Achorn invented and which has become so popular with the bird-lovers of the region.





LOUIS AGASSIZ FUERTES
President Cayuga (N. Y.) Bird Club

Report of the National Association of Audubon Societies and Affiliated Organizations for the Year Ending October 19, 1922

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REPORT OF T. GILBERT PEARSON, PRESIDENT

INTRODUCTION

Some time ago an European naturalist said to me, "If we had the universal public sentiment in favor of bird-protection that you have in America, we, too, might have better laws for the protection of birds." While appreciating the implied compliment to the good sense and judgment of my countrymen, I felt forced to advise him that a portion of his major premise was incorrect. While undoubtedly there exists on the statute books of this country as complete a system of laws for the protection of bird-life as exists in any other country of the globe, these laws are not a result of 'universal public sentiment.' They have been enacted because of the insistence of a small but very active minority of the population. Had he been correct in his assumption there would apparently be no need of the hundreds of game wardens, both state and Federal that it is found necessary to employ to enforce the laws. Had we universal public sentiment on the subject, there would not have been one thousand prosecutions for illegal bird-killing in the state of New York during the year 1921.

The Audubon Society was the pioneer in seeking to secure adequate laws for the well-being of non-game birds in the United States, and those responsible for its growth and development in the various states and nation have ever kept the banner of the Society in the lead of activities looking to this end. Gradually other organizations have been brought into the field, until today there are many state departments, agricultural colleges, museums, membership societies under a variety of titles, and other institutions all interested more or less actively in the protection and study of wild bird-life. Some of these, probably, do not even recognize the original source of the current of thought which brought their work into operation. The organization of the Audubon Society influence has expanded until today it might very properly be called the 'Audubon Movement.' Great responsibility rests upon this Movement to continue and expand its efforts in arousing and crystallizing public interest in the preservation of wild birds. It is to this end that the National Association of Audubon Societies and its affiliated state and local club workers are now bending their efforts. We must use every legitimate means to secure better law enforcement and to arouse the public to the joy of making friends with the wild birds. Something of the manifold lines along which the Audubon Society efforts have been directed during the past year, it is my purpose and privilege to outline briefly in the following pages. Time will not permit mentioning, however, even in brief manner many interesting happenings and developments that have taken place.

THE PLUMAGE SITUATION

In the report of your President one year ago, reference was made to a provision that had been inserted in the Tariff Bill which would, it was thought, stop the open sale of smuggled Paradise feathers in this country. It is a pleasure to here record that when the Tariff Act became a law on September 21, 1922, it carried this feather proviso into the Federal statutes.

When, a year or more ago, announcement was made in the public press that the new tariff bill presented to the House of Representatives by the committee having the matter in charge, contained a paragraph that would



DR. E. W. NELSON, CHIEF U. S. BIOLOGICAL SURVEY, AND TALBOT DENMEAD, DEPUTY CHIEF U. S. GAME WARDEN, EXAMINING CONFISCATED PLUMAGE

render it illegal to sell the imported feathers of wild birds unless proof could be given that such goods had been acquired legally, there was much excitement in the millinery feather-houses. Advertisements promptly appeared in the papers offering to sell Paradise plumes at a greatly reduced rate. Hats decorated with this plumage that a week before were selling for \$160 were now advertised for \$65. As time progressed, and it became increasingly certain that the feather proviso would become a law, the price of Paradise plumes steadily declined as the houses handling them made more frantic efforts to dispose of their stock before the bill should pass. By the middle of September the price shrank to \$29.50, and the day before the bill became a law, many of these exquisite plumes were disposed of at a figure as low as \$15.

We have, therefore, during the past year witnessed a success of what may be the last large legislative battle it is necessary to wage in the United States against the illegal traffic in the feathers of wild birds, a fight which began when in 1885 and 1886, Dr. J. A. Allen and Dr. George Bird Grinnell first began to call the attention of the public to the great slaughter of wild birds for the feather trade. As a matter of fact, the Audubon Society was originally organized as a protest against the killing of our native birds for millinery adornments, and one of our chief activities throughout the years has been to exert a steady pressure on the feather trade.

The reports of the Association the past eighteen years usually have contained considerable space devoted to the progress made in the campaign which now, after the passing of many years, has reached a most successful issue. It is but reasonable to expect that there will continue to be a limited amount of smuggling and surreptitious handling of Paradise plumes, just as these illegal practices are still carried on in dealing with aigrettes. Men in the southern swamps will continue to kill Egrets and sell their feathers quietly to northern tourists who go to Florida winter resorts, and it will be necessary for the Association to continue strenuous activities in protecting the Egret colonies in the Southland. However, the enormous nation-wide slaughter of birds for their feathers no longer exists, and the Audubon Society, whose workers first started the agitation for the protection of birds of plumage and by whose contributions and labors one battle after another has been successfully waged, may well congratulate itself on its achievements in this important field of endeavor.

GENERAL NOTES

The past year, as usual, a very large correspondence has been conducted from the home office, and the field agents also report a steadily increasing volume of demands for information. In addition to the usual office duties, your President has delivered about forty public addresses, many of these before affiliated Audubon Societies and Bird Clubs. If time permitted he would like very much to visit every such organization in the country, for he always finds it extremely stimulating to thus come personally in contact with these workers in the Audubon Movement.

In the late spring he was privileged to make some study of bird-protective conditions in France, Holland, and England, and on June 20 took part in a conference in London where representatives from all these countries were present and at which plans were laid for the formation of a world committee for the protection of birds.

Recently the Board of Directors amended the by-laws of the Association to provide for an associate membership with an annual fee of \$1, to be open to members of such allied organizations as may be accepted by the Board for such purpose from time to time. It was voted that this form of member-

ship at once be made available for Girl Scouts, as that organization now requires that its members shall become members of the Audubon Society, if they desire to obtain a certain required standing in their nature work.

Your officers and directors have endeavored to keep in touch with important legislation affecting the interests for which we labor, and by conference, visits, and correspondence have sought to encourage good legislation and discourage that which was otherwise in nature. Through our wide correspondence we are naturally in constant touch with the current of thought and



THE OLD HOME OF JOHN JAMES AUDUBON, "MINNELAND," JUST OFF RIVERSIDE DRIVE, NEW YORK CITY, WHICH, IT IS REPORTED, MAY SOON BE TORN AWAY TO MAKE ROOM FOR A STREET EXTENSION

Photographed by T. Gilbert Pearson

tendencies of public sentiment dealing with wild life and have endeavored to make the most of all opportunities that arise for the bettering of general conditions touching the subject.

The following field agents have kept constantly at work in their various spheres of influence: Edward H. Forbush, general agent for New England; Winthrop Packard, agent for Massachusetts; Miss Frances A. Hurd, agent for Connecticut; William L. Finley, agent for the Pacific Coast States; Dr. Eugene Swope, working chiefly in Ohio; Mrs. Mary S. Sage, operating mainly on Long Island; Arthur H. Norton, agent for Maine; and Herbert K. Job, in his chosen field of applied ornithology.

Following this report there will be given a detailed statement of their splendid work. The office force, which in the spring ran as high as twenty-four clerks, has, as heretofore, shown a spirit of interest and coöperation which made it possible to accomplish results not obtainable with a less-devoted corps of assistants,

State Audubon Societies and local Audubon Societies and Bird Clubs, to the number of 150, are at this time formally affiliated branches of the National work. The splendid influence of the thousands of men and women working in these groups from the Atlantic to the Pacific is incalculable to our cause. Numbers of these organizations have recently submitted reports which it is planned to publish in connection with this, in order that something of their work may be placed on permanent record and that all may see what others are doing and benefit by their experiences. A list of these affiliated organizations, together with the names and addresses of their presidents and secretaries, so far as they have been reported, is herewith given:

ORGANIZATIONS FORMALLY AFFILIATED WITH THE NATIONAL ASSOCIATION OF AUDUBON SOCIETIES, OCTOBER 19, 1922

STATE AUDUBON SOCIETIES

ARIZONA:

President, Thomas K. Marshall, Tucson, Ariz.

Secretary, Mrs. J. J. Thornber, 109 Olive Road, Tucson, Ariz.

CALIFORNIA:

President, Wilfred Smith, Altadena, Calif.

Secretary, Miss Helen S. Pratt, 245 Ridgeway, Eagle Rock, Los Angeles, Calif.

COLORADO:

President, E. R. Warren, 1511 Wood Ave., Colorado Springs, Colo.

Secretary, Miss Edna L. Johnson, Box 414, Boulder, Colo.

CONNECTICUT:

President, Mrs. Mabel Osgood Wright, Fairfield, Conn.

Secretary, Miss Charlotte A. Lacey, Southport, Conn.

DISTRICT OF COLUMBIA:

President, Hon. Job Barnard, Falkstone Courts, Washington, D. C.

Secretary, Miss Helen P. Childs, Chevy Chase, Md.

EAST TENNESSEE:

President, Rev. Angus McDonald, 1322 Tremont St., Knoxville, Tenn.

Secretary, Miss Magnolia Woodward, Chestnut Hill, Knoxville, Tenn.

FLORIDA:

President, Mrs. Katharine Tippetts, St. Petersburg, Fla.

Secretary, Clifton W. Loveland, Box 22, Palatka, Fla.

ILLINOIS:

President, O. M. Schantz, 10 S. La Salle St., Chicago, Ills.

Secretary, Miss Catharine H. Mitchell, 10 S. La Salle St., Chicago Ills.

INDIANA:

President, Allan Hadley, Monrovia, Ind.

Secretary, S. E. Perkins, 3d, 205 City Trust Bldg., Indianapolis, Ind.

MARYLAND:

President, Mrs. Baker Hull, Washington Apts., Baltimore, Md.

Secretary, Miss Margaretta Poe, 1204 N. Charles St., Baltimore, Md.

MASSACHUSETTS:

President, Edward Howe Forbush, 136 State House, Boston, Mass.

Secretary, Winthrop Packard, 66 Newbury St., Boston, Mass.

MICHIGAN:

President, Mrs. Edith Munger, Hart, Mich.
Secretary, Geneva Smith, 106 Summit St., Ypsilanti, Mich

MINNESOTA:

President, J. W. Taylor, 206 Globe Bldg., St. Paul, Minn

MISSOURI:

President, Dr. Herman von Schrenk, 4139 McPherson Ave., St. Louis, Mo.
Secretary, Robert J. Terry, 5315 Delmar Ave., St. Louis, Mo.

NEW HAMPSHIRE:

President, Gen. Elbert Wheeler, Nashua, N. H.
Secretary, George C. Atwell, Strafford, N. H.

NEW JERSEY:

President, John Dryden Kuser, Bernardsville, N. J.
Secretary, Beecher S. Bowdish, 164 Market St., Newark, N. J.

NORTH CAROLINA:

President, Dr. R. H. Lewis, Raleigh, N. C.
Secretary, Placide Underwood, Raleigh, N. C.

NORTH DAKOTA:

President, Prof. D. Freeman, 711 7th St. N., Fargo, N. Dak.
Secretary, O. A. Stevens, 1110 10th St. N., Fargo, N. Dak.

OHIO:

President, Prof. Wm. G. Cramer, 2501 Kemper Lane, W. H. Cincinnati, Ohio.
Secretary, Miss Katharine Ratterman, 510 York St., Cincinnati, Ohio.

OREGON:

President, William L. Finley, Jennings Lodge, Ore.
Secretary, Dr. Emma J. Welty, 321 Montgomery St., Portland, Ore.

PENNSYLVANIA:

President, Witmer Stone, Academy of Natural Sciences, Philadelphia, Pa.
Secretary, Miss Elizabeth W. Fisher, 2222 Spruce St., Philadelphia, Pa.

RHODE ISLAND:

President, Dr. H. E. Walter, Brown University, Providence, R. I.
Secretary, Miss Marie E. Gandette, Park Museum, Providence, R. I.

UTAH:

President, J. H. Paul, Salt Lake City, Utah.
Secretary, Mrs. A. O. Treganza, 624 E. 6th St. S., Salt Lake City, Utah.

VERMONT:

President, Dr. Ezra Brainerd, Middlebury, Vt.
Secretary, Mrs. Nellie Flynn, Burlington, Vt.

WEST TENNESSEE:

Secretary, C. C. Hanson, Box 1043, Memphis, Tenn.

WEST VIRGINIA:

President, Miss Bertha E. White, 1609 Latrobe St., Parkersburg, W. Va.
Secretary, Walter Donaghho, 2528 Murdock Ave., Parkersburg, W. Va.

CLUBS AND OTHER ORGANIZATIONS

ANDERSON (IND.) BIRD CLUB:

President, S. R. Esten, Anderson, Ind.
Secretary, Mrs. Mary L. Cook, 412 W. 11th St., Anderson, Ind.

AUDUBON ASSOCIATION OF THE PACIFIC (CALIF.):

President, A. S. Kibbe, 1534 Grove St., Berkeley, Calif.
Secretary, Miss I. Ames, Wellington Hotel, Geary St., Berkeley, Calif.

AUDUBON BIRD CLUB OF ERASMUS HALL (N. Y.):

President, Arthur Rosenberg, Erasmus Hall High School, Brooklyn, N. Y.

Secretary, Miss Marion Dehuee, 188 Fenimore St., Brooklyn, N. Y.

AUDUBON CLUB OF ARDMORE (OKLA.):

President, Mrs. Sam H. Butler, 1010 Hargrove St., Ardmore, Okla.

AUDUBON SOCIETY OF EVANSVILLE (IND.):

President, George S. Clifford, Evansville, Ind.

Secretary, Miss Edith O. Trimble, 1040 S. 2d St., Evansville, Ind.

AUDUBON SOCIETY OF IRVINGTON (N. Y.):

President, Caspar Whitney, Irvington-on-Hudson, N. Y.

Secretary, Mrs. Theodore B. Nesbit, Irvington-on-Hudson, N. Y.

AUDUBON SOCIETY OF IRWIN (PA.):

President, R. T. McCormack, Irwin, Pa.

Secretary, Bert H. Rylander, Irwin, Pa.

AUDUBON SOCIETY OF SEWICKLEY VALLEY (PA.):

President, George H. Clapp, Woodland St., Sewickley, Pa.

Secretary, Miss E. L. Young, 405 Peebles St., Sewickley, Pa.

AUDUBON SOCIETY OF SKANEATELES (N. Y.):

Secretary, Miss Sarah M. Turner, Skaneateles, N. Y.

BEDFORD (N. Y.) AUDUBON SOCIETY:

President, William Borland, Bedford Hills, N. Y.

BIRD CLUB OF LONG ISLAND (N. Y.):

President, Mrs. E. M. Townsend, Townsend Place., Oyster Bay, L. I., N. Y.

Secretary, Mrs. Richard Derby, Oyster Bay, L. I., N. Y.

BIRD CLUB OF WASHINGTON (N. Y.):

President, Mrs. Susan D. Sackett, Millbrook, N. Y.

Secretary, Mrs. H. S. Downing, Millbrook, N. Y.

BIRD CONSERVATION CLUB OF BANGOR (MAINE):

President, Miss Madeleine Giddings, Coombs St., Bangor, Maine.

Secretary, Miss Alice Brown, 53 Court St., Bangor, Maine.

BIRD-LOVERS CLUB (MIDDLETOWN, N. Y.):

President, Miss E. E. Mattison, Box 1453, Middletown State Hospital, Middletown, N. Y.

BLAIR COUNTY (PA.) GAME, FISH AND FORESTRY ASSOCIATION:

President, John H. Winter, 1609 11th Ave., Altoona, Pa.

Secretary, Paul Kreuzpointer, 1400 3d Ave., Altoona, Pa.

BRITISH COLUMBIA (CAN.) NATURAL HISTORY SOCIETY:

President, W. H. Kelly, 410 Jones Bldg., Victoria, B. C., Canada.

Secretary, Harold T. Nation, 1613 Elgin Road, Victoria, B. C., Canada.

BROOKLINE (MASS.) BIRD CLUB:

President, L. R. Talbot, 509 Audubon Road, Boston, Mass.

Secretary, Mrs. George W. Kann, 162 Aspinwall Ave., Brookline, Mass.

BROOKLYN (N. Y.) BIRD-LOVERS CLUB:

President, Miss M. S. Daper, Care of Children's Museum, 185 Brooklyn Ave., Brooklyn, N. Y.

Secretary, Miss Elsie Tiplin, 228 St. James Place, Brooklyn, N. Y.

BUCK HILL NATURE CLUB (PA.):

President, Mrs. William C. Gannett, Buck Hill Falls, Pa.

Secretary, Mrs. Margaret S. Strattan, Buck Hill Falls, Pa.

BUFFALO (N. Y.) AUDUBON SOCIETY:

President, Edward C. Avery, 114 Marine St., Buffalo, N. Y.

Secretary, Mrs. E. M. Wilson, 503 Lafayette Avenue, Buffalo, N. Y.

BURROUGHS-AUDUBON NATURE STUDY CLUB (ROCHESTER, N. Y.):

President, William B. Hoot, 203 Monroe Ave., Rochester, N. Y.

Secretary, Miss Harriet Ganung, 57 S. Washington St., Rochester, N. Y.

BURROUGHS JUNIOR AUDUBON SOCIETY (KINGSTON, N. Y.):

President, Elizabeth Burroughs, Kingston High School, Kingston, N. Y.

Secretary, Ethel Shaffer, Kingston High School, Kingston, N. Y.

BURROUGH NATURE STUDY CLUB (JOHNSTOWN, N. Y.):

President, Rev. Charles McKenzie, 35 S. Market St., Johnstown, N. Y.

Secretary, Miss Margaret E. Raymond, 200 Fon Claire St., Johnstown, N. Y.

CANANDAIGUA (N. Y.) BIRD CLUB:

President, Mrs. Edwin P. Gardner, Canandaigua, N. Y.

Secretary, Miss Rachel Packard, Canandaigua, N. Y.

CARROLLTON (KY.) WOMAN'S CLUB:

Treasurer, Miss Katie Vallanding, 811 Highland Ave., Carrollton, Ky.

CAYUGA BIRD CLUB (N. Y.):

President, Louis Agassiz Fuertes, Ithaca, N. Y.

CHAUTAUQUA (N. Y.) BIRD AND TREE CLUB:

President, Mrs. Robert A. Miller, Pelham Manor, N. Y.

Secretary, Mrs. H. B. Norton, 9 Claremont Ave., New York City.

CIVIC LEAGUE (MICH.):

Secretary, Miss May Turner, 1702 Court St., Saginaw, Mich.

COCOANUT GROVE (FLA.) AUDUBON SOCIETY:

Secretary, Mrs. Florence P. Haden, Cocoanut Grove, Fla.

COLORADO MUSEUM OF NATURAL HISTORY:

President, Frank M. Taylor, Colorado Museum, City Park, Denver, Colo.

Director, J. D. Figgins, Colorado Museum, City Park, Denver, Colo.

COLUMBUS (OHIO) AUDUBON SOCIETY:

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Secretary, Miss Lucy B. Stone, 26 Garfield Ave., Columbus, Ohio.

CRAWFORDSVILLE (IND.) AUDUBON AND NATURE STUDY CLUB:

Secretary, Mrs. Emma T. Bodine, Crawfordsville, Ind.

CUMBERLAND COUNTY (MAINE) AUDUBON SOCIETY:

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Secretary, Mrs. George F. Black, Portland, Maine.

DANA NATURAL HISTORY SOCIETY (N. Y.):

President, Mrs. Charles Selkirk, 111 S. Lake Ave., Albany, N. Y.

Secretary, Mrs. John J. Merrill, 353 State St., Albany, N. Y.

DELTA DUCK CLUB (LA.):

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DETROIT (MICH.) BIRD PROTECTING CLUB:

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DOYLESTOWN (PA.) NATURE CLUB:

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ELGIN (ILL.) AUDUBON SOCIETY:

President, B. F. Berryman, 13 Chicago St., Elgin, Ills.

Secretary, Cyrrill Abbott, 24 S. Liberty St., Elgin, Ills.

ENGLEWOOD (N. J.) BIRD CLUB:

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Secretary, Mrs. Thomas Haight, Englewood, N. J.

FOREST HILLS GARDENS (N. Y.) AUDUBON SOCIETY:

President, Mrs. George Smart, 45 Deepdena Road, Forest Hills, L. I., N. Y.
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 Secretary, Miss Marcia B. Hiller, Franklin, N. Y.

FRANCIS W. PARKER SCHOOL (CHICAGO, ILLS.):

Secretary, Miss Florence N. Hefter, Francis W. Parker School, Chicago, Ills.

GARDEN CLUB OF EVANSTON (ILLS.):

President, Mrs. John Blunt, Evanston, Ills.
 Secretary, Mrs. William Evans, Main St., Evanston, Ills.

GENESSE (N. Y.) WESLEYAN AUDUBON SOCIETY:

President, Harold V. Potter, Wesleyan Seminary, Lima, N. Y.
 Secretary, Miss Mariana Staver, Wesleyan Seminary, Lima, N. Y.

GIRL SCOUTS, OAK TROOP NO. 1. (MINN.):

Secretary, Mrs. H. E. Weiss, Zumbrota, Minn.

GIRL SCOUTS, TROOP NO. 2 (MASS.):

Secretary, Miss Elsie H. Lewis, 30 Bassett St., East Lynn, Mass.

GLENVILLE (W. VA.) NORMAL BIRD CLUB:

President, Edgar Hatfield, Glenville Normal School, Glenville, W. Va.
 Secretary, Miss Pansy Starr, Glenville Normal School, Glenville, W. Va.

GROTON (MASS.) BIRD CLUB:

President, William P. Wharton, Five Oaks, Groton, Mass.
 Secretary, Miss Gertrude B. Gerrish, Groton, Mass.

HAMILTON (ONT.) BIRD PROTECTION SOCIETY:

President, R. Owen Merriman, 96 W. Second St., Hamilton, Ont., Canada.
 Secretary, Miss Ruby R. Mills, 36 Robins St., Hamilton, Ont., Canada.

HARDY GARDEN CLUB OF RUXTON (MD.):

Secretary, Mrs. John Love, Riderwood, Md.

HARTFORD (CONN.) BIRD STUDY CLUB:

President, Henry W. White, 454 Park Road, West Hartford, Conn.
 Secretary, Ruth L. Spaulding, 22 Townley St., Hartford, Conn.

HESSTON (KANS.) AUDUBON SOCIETY:

President, Edward Yoder, Hesston, Kans.
 Secretary, Estie M. Yoder, Hesston, Kans.

IOWA CITY (IOWA) AUDUBON SOCIETY:

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 Secretary, Philip A. Walker, Manville Heights, Iowa City, Iowa.

LITTLE LAKE CLUB (LA.):

Secretary, George B. Matthews, Jr., 420 S. Front St., New Orleans, La.

LOS ANGELES (CALIF.) AUDUBON SOCIETY:

Secretary, Mrs. E. J. Saunders, 122 N. Friends Ave., Whittier, Calif.

MANCHESTER (N. H.) BIRD CLUB:

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MANCHESTER (MASS.) WOMAN'S CLUB:

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 Secretary, Fred Carus, 1502 Washington St., Manitowoc, Wis.

MERIDEN (CONN.) BIRD CLUB:

President, Judge Frank L. Fay, 510 Broad St., Meriden, Conn.
 Secretary, Miss Mary P. Ives, 81 Randolph Ave., Meriden, Conn.

MERIDEN (N. H.) BIRD CLUB:

President, Dr. Ernest L. Huse, Meriden, N. H.

Secretary, Miss Elizabeth Alden Tracy, Meriden, N. H.

MIAMI (FLA.) AUDUBON SOCIETY:

President, Mrs. J. T. Gratin, Buena Vista, Fla.

Secretary, Mrs. R. D. Maxwell, 230 S. E. 1st Ave., Miami, Fla.

MILLBROOK (N. Y.) GARDEN CLUB:

President, Mrs. Oakleigh Thorne, Millbrook, N. Y.

Secretary, Miss M. Elizabeth Smith, Millbrook, N. Y.

MINNEAPOLIS (MINN.) AUDUBON SOCIETY:

President, Mrs. A. Edward Cook, 4121 S. Sheridan Ave., Minneapolis, Minn.

Secretary, Mrs. Willard W. Davis, 4441 S. Washburn Ave., Minneapolis, Minn.

MISS HATTIE AUDUBON SOCIETY (KY.):

President, Mrs. Pierce Butler, 1303 1st St., Louisville, Ky.

Secretary, Miss Jenny L. Robbins, 505 W. Ormsby Ave., Louisville, Ky.

MISSOULA (MONT.) BIRD CLUB:

President, Mrs. Sarah E. Summer, 416 Grand Ave., Missoula, Mont.

Secretary, Miss C. Wells, 502 S. 4th St., W., Missoula, Mont.

MONTCLAIR (N. J.) BIRD CLUB:

President, Randolph H. Howland, 164 Wildwood Ave., Upper Montclair, N. J.

Secretary, Miss Lucy N. Morris, 90½ Midland Ave., Montclair, N. J.

NATURE STUDY CLUB (IOWA):

Secretary, Mrs. W. F. Muse, 22 River Heights, Mason City, Iowa.

NATURE STUDY CLUB OF PITTSBURGH (PA.):

Secretary, Miss Edna E. Schlegel, 7217 Witherspoon St., Pittsburgh, Pa.

NATURE CLUB OF ULSTER (PA.):

President, Mrs. Fred E. Mather, Ulster, Pa.

Secretary, Miss Martha McMorran, Ulster, Pa.

NATURE STUDY CLUB (ROCKFORD, ILLS.):

Treasurer, Gertrude M. Thomas, 1003 N. Court St., Rockford, Ills.

NEIGHBORHOOD NATURE CLUB (CONN.):

President, Mrs. H. P. Beers, Southport, Conn.

Secretary, Mrs. Wm. Taylor, Jr., Westport, Conn.

NEWARK BAIT AND FLY CASTING CLUB (N. J.):

President, Kenneth F. Lockwood, 92 Richelieu Terrace, Newark, N. J.

Secretary, R. Kersting, 82 Fulton St., New York City.

NEW YORK BIRD AND TREE CLUB:

President, Dr. George F. Kunz, 601 W. 110th St., New York City.

NEW CENTURY CLUB OF UTICA (N. Y.):

President, Mrs. Libbri C. Westcott, 253 Genesee St., Utica, N. Y.

Secretary, Miss Ida J. Butcher, 253 Genesee St., Utica, N. Y.

NEW BEDFORD (MASS.) WOMAN'S CLUB:

President, Mrs. Walter H. Bassett, 347 Union St., New Bedford, Mass.

Secretary, Mrs. I. M. Kelsey, 53 Willis St., New Bedford, Mass.

NEW CANAAN (CONN.) BIRD PROTECTIVE SOCIETY:

Treasurer, Miss Annie M. Behre.

NEW PHILADELPHIA (OHIO) BIRD CLUB:

President, B. H. Scott, New Philadelphia, Ohio.

NEWARK (N. J.) BIRD CLUB:

President, Herbert L. Thowless, 765 Broad St., Newark, N. J.

Secretary, Mrs. James P. Clement, 717 Clifton Ave., Newark, N. J.

NORRISTOWN (PA.) AUDUBON CLUB:

President, Willis R. Robert, 800 DeKalb St., Norristown, Pa.

NORTH EAST (PA.) NATURE STUDY CLUB:

President, N. S. Woodruff, North East, Pa.

Secretary, Mrs. J. M. Benedict, 74 Gibson St., North East, Pa.

PASADENA (CALIF.) AUDUBON SOCIETY:

President, Howard W. Carter, 1085 N. Raymond Ave., Pasadena, Calif.

Secretary, Miss Alice W. Pitman, 742 N. Mentor Ave., Pasadena, Calif.

PEORIA (ILL.) AUDUBON SOCIETY:

President, V. H. Chase, Peoria, Ills.

Secretary, Miss Minnie M. Clark, 514 Western Ave., Peoria, Ills.

PHILERGIANS (THE) (MASS.):

President, Mrs. Walter A. Poore, 94 Liberty St., East Braintree, Mass.

Secretary, Mrs. H. T. French, 353 Beacon St., Boston 17, Mass.

PILGRIM WOMEN'S CLUB (MASS.):

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President, L. McI. Terrill, 44 Stanley Ave., St. Lamberts, P. Q., Canada.

Secretary, Mrs. N. E. L. Dyer, 12 Willow Ave., Westmount, Montreal, Canada.

RACINE (WIS.) BIRD CLUB:

Secretary, A. E. Shedd, 1308 Main St., Racine, Wis.

READ, MARK AND LEARN CLUB (R. I.):

President, Mrs. Julia Rich, 32 Whitmarsh St., Providence, R. I.

Secretary, Mrs. George A. Jepherson, 134 Brown St., Providence, R. I.

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President, Mrs. Elizabeth Rathburn, Ivoryton, Conn.

Secretary, Mrs. L. Behrens, Ivoryton, Conn.

RHINEBECK (N. Y.) BIRD CLUB:

President, Maunsell S. Crosby, Rhinebeck, N. Y.

Secretary, Tracy Dows, Rhinebeck, N. Y.

ROCKAWAY (N. Y.) BRANCH OF THE NATIONAL AUDUBON SOCIETY:

President, Arthur H. Cooper, 7 Lockwood Ave., Far Rockaway, N. Y.

Secretary, Miss Margaret S. Green, Far Rockaway, N. Y.

SAGINAW (MICH.) BRANCH OF AMERICAN UNIVERSITY WOMEN:

Chairman, May Turner, 1702 Court St., Saginaw, Mich.

Treasurer, Mrs. Edna C. Wilson, 315 S. Warren St., Saginaw, Mich.

SAGINAW (MICH.) READING CLUB:

President, Mrs. James Cartwright, 1732 N. Michigan Ave., Saginaw, Mich.

ST. LOUIS (MO.) BIRD CLUB:

President, Dr. Robert J. Terry, 9 Lenox Place, St. Louis, Mo.

Secretary, Miss Jennie F. Chase, 5569 a. Cabanne Ave., St. Louis, Mo.

ST. PAUL (MINN.) AUDUBON SOCIETY:

Treasurer, Wm. W. Field, 47 Kent St., St. Paul, Minn.

ST. PETERSBURG (FLA.) AUDUBON SOCIETY:

President, Mrs. Katharine Tippetts, The Belmont, St. Petersburg, Fla.

Secretary, Mrs. M. G. Foster, St. Petersburg, Fla.

SAND HILL BIRD CLUB (N. C.):

President, Dr. John Warren Achorn, Pine Bluff, N. C.

Secretary, Miss Gussie Abrams, Pine Bluff, N. C.

SARATOGA (N. Y.) BIRD CLUB:

President, Waldo Leon Rich, 15 Rock St., Saratoga Springs, N. Y.

Secretary, Miss Caroline C. Walbridge, 109 Lake Ave., Saratoga Springs, N. Y.

SAVANNAH (GA.) AUDUBON SOCIETY:

President, H. B. Skeele, 116 W. Gaston St., Savannah, Ga.
Secretary, Mrs. B. F. Bullard, 122 E. 36th St., Savannah, Ga.

SCITUATE (MASS.) WOMAN'S CLUB:

President, Mrs. Eva L. Granes, North Scituate, Mass.
Secretary, Mrs. Mary A. Doherty, Scituate, Mass.

SCRANTON (PA.) BIRD CLUB:

President, Mrs. Francis H. Coffin, 1528 Jefferson Ave., Scranton, Pa.
Secretary, Miss Eleanor Jones, 14 Dart Ave., Carbondale, Pa.

SIoux FALLS (S. D.) AUDUBON SOCIETY:

President, Mary Peabody, Sioux Falls, S. Dak.
Secretary, Mrs. M. P. Price, Sioux Falls, S. Dak.

SOCIETE PROVENCHER D' HISTOIRE NATURELLE DU CANADA:

President, Rev. P. J. Fillion,
Secretary, Jos. Matte, 18 Avenue Maisonneuve, Quebec, Canada.

SOUTH HAVEN (MICH.) BIRD CLUB:

President, Mrs. A. D. Williams, Michigan Ave., South Haven, Mich.
Secretary, Miss Florence T. Gregory, South Haven, Mich.

SPOKANE (WASH.) BIRD CLUB:

President, Walter Bruce, 813 Lincoln Place, Spokane, Wash.
Secretary, Mrs. Elizabeth Buchecker, W. 725 Chelan Ave., Spokane, Wash.

STANTON BIRD CLUB (MAINE):

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STATEN ISLAND (N. Y.) BIRD CLUB:

President, William T. Davis, 146 Stuyvesant Place, Staten Island, N. Y.
Secretary, Charles W. Leng, St. George, Staten Island, N. Y.

SUSSEX COUNTY (N. J.) NATURE STUDY CLUB:

President, Mrs. Wm. G. Drake, 333 Halsted St., Newton, N. J.
Secretary, Miss F. Blanche Hill, Andover, N. J.

TOPEKA (KANS.) AUDUBON SOCIETY:

President, Miss Ruth M. Price, 1322 W. 7th St., Topeka, Kans.
Secretary, Miss Ida M. Harkins, 1322 W. 7th St., Topeka, Kans.

ULSTER GARDEN CLUB (N. Y.):

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Secretary, Mrs. Charles Warren, Clinton Ave., Kingston, N. Y.

VASSAR WAKE ROBIN CLUB (N. Y.):

President, Miss Mary K. Brown, Vassar College, Poughkeepsie, N. Y.
Secretary, Miss Mary Horne, Vassar College, Poughkeepsie, N. Y.

VIGO COUNTY (IND.) BIRD CLUB:

President, Miss Sallie Dawson, Terre Haute, Ind.
Secretary, Miss Sarah J. Elliot, Union Hospital, Terre Haute, Ind.

WASHINGTON STATE FEDERATION OF WOMEN'S CLUBS:

President, Mrs. A. E. Larson, 1811 W. Yakima Ave., Yakima, Wash.
Secretary, Mrs. W. O. Bradbury, 513 N. 2d St., Yakima, Wash.

WATERBURY (CONN.) BIRD CLUB:

President, Mrs. A. A. Crane, 300 W. Main St., Waterbury, Conn.
Secretary, Carl F. Northrup, 144 Bank St., Waterbury, Conn.

WATERTOWN (N. Y.) BIRD CLUB:

President, P. B. Hudson, Watertown, N. Y.
Secretary, Miss Grace B. Nott, Watertown, N. Y.

WADLEIGH GENERAL ORGANIZATION (N. Y.):

President, Miss Frieda Finklestein, 233 W. 112th St., New York City

Secretary, Miss Mildred Bunnell, 235 W. 135th St., New York City.

WASHINGTON (IND.) AUDUBON SOCIETY:

President, Mrs. R. C. Hyatt, 702 E. Walnut St., Washington, Ind.

WEST CHESTER (PA.) BIRD CLUB:

President, Isaac G. Roberts, 217 E. Washington St., West Chester, Pa.

Secretary, Miss Lillian W. Pierce, 205 S. Walnut St., West Chester, Pa.

WESTERN PENNSYLVANIA AUDUBON SOCIETY (PA.):

President, C. W. Parker, Oliver Bldg., Box 64, Pittsburgh, Pa.

Secretary, Mrs. Spencer C. King, 224 Ingram Ave., Crafton, P. O., Pittsburgh, Pa.

WINTER PARK (FLA.) BIRD CLUB:

President, Rev. W. M. Burr, Winter Park, Fla.

WOMAN'S CLUB (CONN.):

President, Mrs. E. B. Hobart, 41 Elm St., Seymour, Conn.

Secretary, Mrs. L. C. McEwen, 106 West St., Seymour, Conn.

WOMEN'S CONTEMPORARY CLUB (N. Y.):

President, Mrs. Walter Rogers, 88 Mamaroneck Ave., White Plains, N. Y.

Secretary, Mrs. Josiah I. Perry, 86 Hamilton Ave., White Plains, N. Y.

WYNCOTE (PA.) BIRD CLUB:

President, E. H. Parry, Wyncote, Pa.

Secretary, Miss Esther Heacock, Wyncote, Pa.

WYOMING VALLEY AUDUBON SOCIETY (PA.):

President, Mrs. W. H. Trembath, 368 Maple Ave., Kingston, Pa.

Secretary, H. W. Bay, 32 Oneida Place, Forty Fort, Pa.

JUNIOR CLUBS

Interest in the minds of the children of the country in the Association's plan of primary bird-study remains unabated. From teachers in every State in the Union we receive letters commending the liberal offer made to their pupils and complimentary expressions regarding the character of literature and colored pictures of birds furnished them.

Each teacher who forms a class of twenty-five or more receives free a year's subscription to BIRD-LORE, every issue of which contains interesting articles prepared with the special view of being helpful to those who are endeavoring to teach the young about the pleasure and value of wild bird-life. Thus, many people who know little about birds themselves do not hesitate to form Junior Audubon Clubs, realizing that through the magazine they may acquire a certain amount of reserve information which they can pass on to the children and thus retain their dignified position of superior knowledge which they naturally have in the other subjects which they are accustomed to present to their classes.

In many schools the Junior Members have constructed and erected large numbers of boxes in which birds may nest. Other thousands feed the birds during the winter and many list the occurrence of species found in their neighborhood.

In addition to the correspondence and circulars from the home office, much material has been sent by our field agents, who, by lecturing in schools, have carried the gospel of bird-protection to thousands of eager listeners.

Coöperating financially with the University of Virginia, we were able to arrange for Miss Katharine H. Stuart to give a course in bird-study to the students of the State Summer School.

A like arrangement was entered into with the University of Colorado, and Ralph Hubbard represented us in giving a five-weeks' course in bird-work at the State Summer School at Boulder.

The Conservation Commission of Louisiana has taken much interest. The past year, H. H. Kopman, a member of the Commissioners staff, has



A JUNIOR AUDUBON CLUB AT CLEARWATER, FLORIDA

represented us in the Junior work in Louisiana. Officials of many Audubon Societies and Bird Clubs are giving the work their support. Among these may be especially mentioned the Societies in Oregon, Massachusetts, New Jersey, and Indiana.

Through the financial support of one of our members, Mr. C. Oliver Iselin, we were able to send Henry Oldys to South Carolina to give courses of lectures during the summer to the teachers assembled in the State Summer School at Winthrop Normal College. Arrangements have been made with the University of South Carolina by which J. D. Corrington, Assistant Professor of Zoology, becomes our representative in handling the Junior work in that State. This will be conducted as part of the regular University Extension

activities. Mr. Corrington, a vigorous and trained ornithologist, will undoubtedly prove to be a source of great strength to the cause in his portion of the Southland.

Commissioner J. B. Harkin, Department of Canadian National Parks, became greatly impressed with this work with the children, and, on his own initiative, communicated with the officials of various provinces in Canada, asking whether they would be willing to assist in encouraging the formation of Junior Audubon Clubs in their schools. Very hearty and favorable acceptances were received by him from the provinces of Alberta, Manitoba, Nova Scotia, and Saskatchewan. Commissioner Harkin is now negotiating with the home office to see whether it is possible to have our leaflets published in the French language, in order that they may be used among the extensive French-speaking population in the Province of Quebec.

During the year our generous benefactor, who has for some time been supplying \$20,000 annually to make this work with the children possible, decided to endow at least half his annual gift. Therefore, on March 1, 1922, there was received from him the sum of \$200,000 cash, accompanied with the statement that the funds were given:

"First, For the education of the general public in the knowledge and value of useful, beautiful, and interesting forms of wild life, especially birds.

"Second, For the actual protection and perpetuation of such forms of wild life on suitable breeding and other reservations.

"Third, For protecting and maintaining adequate protection for such forms of wild life in all parts of the Western Hemisphere.

"Fourth, Or for any one of these purposes."

For the present the Board plans to use the income exclusively for the Junior Audubon Club work. In addition to the above, our Benefactor has also sent \$10,000 to be used in this field the coming year. I regret to report that some of the other contributors, owing to financial reverses, have been forced to discontinue their support of the Junior Department the coming year. It seems too bad that a much larger sum cannot be made available for this important work with the children.

Years ago this plan passed the experimental stage and has received the stamp of approval of principals, superintendents, and teachers all over the country, and, what is more important, it has met with the hearty good-will and enthusiastic acceptance of the children.

In reference to this phase of the Association's plans, the new United States Commissioner of Education recently sent your President the following letter:

I am greatly interested in the aims of the Audubon Societies and believe that the idea of the Junior Audubon Clubs is good.

Children are always interested in bird-life, and there is a great opportunity for organizations such as the Junior Audubon Clubs to spread information among them on this subject

and to inculcate in them a love of our winged friends and a desire to protect instead of persecute them. I wish the Junior Audubon Clubs the greatest success in their work.

Cordially yours,

Washington, D. C.

(Signed) JOHN T. TIGERT

With the close of the school year, on June 1, 1922, it was found that 5,543 clubs had been formed during the previous twelve months, and the total membership in this period amounted to 216,572. The following table shows their distribution by states:

STATEMENT SHOWING NUMBERS AND LOCATION OF JUNIOR AUDUBON CLUBS FORMED DURING THE YEAR ENDING JUNE 1, 1922

STATES	CLUBS	MEMBERS
Alabama.....	32	1,191
Arizona.....	2	60
Arkansas.....	20	1,011
California.....	128	4,775
Colorado.....	63	2,462
Connecticut.....	219	8,134
Delaware.....	21	665
District of Columbia.....	5	215
Florida.....	61	2,571
Georgia.....	24	879
Idaho.....	15	617
Illinois.....	281	11,443
Indiana.....	185	7,884
Iowa.....	98	3,681
Kansas.....	78	3,031
Kentucky.....	31	1,255
Louisiana.....	15	446
Maine.....	51	1,408
Maryland.....	64	2,603
Massachusetts.....	494	17,353
Michigan.....	123	5,435
Minnesota.....	219	8,487
Mississippi.....	7	228
Missouri.....	67	3,003
Montana.....	20	793
Nebraska.....	65	2,353
Nevada.....	6	201
New Hampshire.....	23	866
New Jersey.....	222	9,281
New Mexico.....	8	260
New York.....	813	33,278
North Carolina.....	33	1,169
North Dakota.....	23	887
Ohio.....	591	20,935
Oklahoma.....	25	1,072
Oregon.....	49	2,687
Pennsylvania.....	606	25,338

STATES	CLUBS	MEMBERS
Rhode Island.....	11	744
South Carolina.....	31	1,048
South Dakota.....	52	1,974
Tennessee.....	12	394
Texas.....	52	2,106
Utah.....	51	2,039
Vermont.....	20	1,017
Virginia.....	55	2,281
Washington.....	55	2,446
West Virginia.....	41	1,621
Wisconsin.....	145	5,553
Wyoming.....	5	202
Canada.....	216	7,191
Totals.	5,543	216,572

WARDENS AND RESERVATIONS

Some of the Herring Gull colonies that have long been guarded by the wardens of the Association were this year abandoned temporarily, at least. This special protective work was begun about twenty years ago, as the birds at that time had been greatly reduced in numbers because of the war made on them by the agents of the millinery trade. With the passage of the Audubon Law in the various states of the Union, and the later state and Federal enactments which rendered it illegal to sell feathers of native birds, the demand for Gulls' wings in the feather trade may be said to have entirely stopped.

Aside from their natural enemies, therefore, this species had but little to fear, save when an occasional lobsterman or fisherman landed on their breeding-islands to gather a bucket of eggs for food, or when some fishermen or tourist shot at a passing bird. Even this was prevented largely by the watchfulness of the Audubon wardens. Very naturally, therefore, this species began rapidly to increase and has once more become an extremely abundant species.

The Herring Gull lives not altogether a blameless life, and varied are the complaints that have been made against him because of his alleged killing of young domestic ducks and chickens, his destruction of sheep pastures along the coast, and his pollution of city reservoirs. Arthur H. Norton, representing this Association, was sent along the coast of Maine two different summers to make careful observations on the destructiveness of the Herring Gull. As result of his final investigations, coupled with the recommendations of Edward H. Forbush, State Ornithologist of Massachusetts, and Dr. E. W. Nelson, Chief of the Bureau of Biological Survey in Washington, the Board of Directors decided the past spring that the Association was not at this time justified in continuing to spend money to guard these birds, and several wardens therefore, were withdrawn from service. As there is today practically no demand for their feathers and but little egging is known to exist, the Gulls

will doubtless continue to enjoy peace and prosperity. Should their numbers ever again be threatened, it would be a simple matter to reëstablish protection on their breeding-islands.

During the year, warden service has been extended to four additional Egret colonies, two in South Carolina and two in western Florida. Some of the new Audubon Islands on the lower coast of Texas have also been protected by a guardian for the first time.

Birds in our protected colonies appear to have enjoyed a good nesting-season, and with the exception of the Roseate Spoonbill colony in southwestern Louisiana, all appear to have held their own or increased numerically during the season. Twenty-four wardens, guarding about fifty islands, lakes, or other special territories, were employed. A list of these officials, together with their addresses, names of the colonies they protected, and brief notes on the more abundant species of birds found in all cases is given below.

LIST OF PRESENT AUDUBON WARDENS

Elisha G. Bunker, Cranberry Island, Maine, guarded Cranberry Island, Beggars' Island, Duck Island, and Gott Island. Birds breeding there were Black Ducks, Gulls, and migratory shore-birds.

Fred E. Small, Bucks Harbor, Maine, guarded Old Man's Island and Double Head Shots Island, protecting about 150 Eider Ducks, also colonies of Herring Gulls.

Charles R. Beal, Beals, Maine, guarded Freeman's Rock, where Herring Gulls and other water-birds were breeding.

Frank O. Hilt, Matinicus, Maine, guarded Matinicus Rock Island where it is estimated 18,000 Common and Arctic Terns were nesting. Also several hundred Black Guillemots and 12 Puffins, which as a breeding species is very rare on our Atlantic coast.

George E. Cushman, Portland, Maine, guarded Bluff and Stratton Islands, holding, this year, about 10,000 Arctic, Common and Roseate Terns.

Woodbury M. Snow, Rockland, Maine, guarded Metinic Green Island, protecting Herring Gulls, Terns, and Guillemots.

Irving L. Edwards, Springs, N. Y., guarded south end of Gardiner's Island where there is a large colony of Terns.

Samuel D. Cramer, Tuckerton, N. J., guarded the life-saving station beach and adjacent marsh where thousands of Laughing Gulls and hundreds of Clapper Rails reared their young. Twenty-five pairs of Black Skimmers also occupied the colony this year.

J. R. Andrews, Cheriton, Va., protected Big and Little Easters Islands where it is estimated 300 Laughing Gulls, 1,200 Terns and 4,000 Clapper Rails were breeding.

Julian Brown, Marshallburg, N. C., guarded Craney Island, where Great

Blue, Louisiana, Little Blue, and Black-crowned Night Herons, as well as Snowy and large Egrets assembled to rear their young.

Arthur T. Wayne, Mt. Pleasant, S. C., protected Egret rookeries on Fairlawn Plantation and Penny Dam Reservoir. The colonies were reported to contain about 45 pairs of large Egrets and several hundred Little Blue, Louisiana, and Black-crowned Night Herons. In 1922, 125 pairs of White Ibises also nested here.

Ludwig A. Beckman, McClellanville, S. C., guarded Santee River Rookery colony, estimated to contain occupied nests as follows: Great Blue Heron, 150; Little Blue Heron, 240; Black-crowned Night Heron, 175; Large Egret, 460; and Snowy Egret, 100.

R. F. Grimbail, Charleston, S. C., protected Buzzard Island on James Island, S. C., guarding breeding colonies as follows: 500 Snowy Egrets, 250 Black-crowned Night Herons; and 700 Louisiana Herons.

M. N. Gist, McIntosh, Fla., guarded Bird Island, Red Bird Island, Elder Island, and Sawgrass Island in Orange Lake, and estimated them to contain breeding pairs as follows: American Egret, 62; Snowy Egret, 18; Ward's Heron, 90; Little Blue Heron, 200; Louisiana Heron, 150; Green Heron, 400; Black-crowned Night Herons, 35; Water Turkeys, 70; Least Bittern, 450; Florida Gallinule, 1,200; Purple Gallinule, 1,000; Boat-tailed Grackle, 2,400; Red-winged Blackbird, 4,000; Florida Duck, 16; Wood Duck, 25; White Ibis, 1,700; and King Rail, 4.

S. Elliott Bouknight, Micanopy, Fla., guarded in Black Gum Swamp, a small colony of perhaps 200 birds containing Water Turkeys, Egrets, Snowy Egrets, and other Herons.

J. M. Jackson, Port Orange, Fla., protected Spruce Creek and Island Pond rookeries, estimated to contain 1,200 Snowy Egrets and about 600 large Egrets. Several hundred of the common Herons also bred here.

L. Ashburner, Roseland, Fla., guarded various islands in the San Sebastian River, estimated to contain 1,000 to 1,500 White Ibises and about 200 Snowy Egrets, 75 Water Turkeys, and about 1,600 common Herons of three species.

W. L. Odum, Thomasville, Ga., protected May's Pond rookery in Jefferson County, Fla. This vast colony was estimated to contain 8,000 large Egrets, as well as thousands of Wood Ibises, Water Turkeys, and Ward's Herons.

R. T. Berryhill, Jr., Milltown, Ga., guarded Banks Pond rookery, Jefferson County, Fla. This was estimated to contain 3,000 American Egrets, thousands of Ward's Herons, Ibises, and other water-birds, as well as several hundred Wood Ducks.

Albert Matulich, Pilot Town, La., guarded vast Brown Pelican colonies off Pass a Lutre and estimates 17,000 Pelicans bred there this year, besides Caspian and Forster's Terns. There are twelve islands in this group.

R. H. Stirling, Wakefield, La., protected Ray's Lake and Thompson's Creek, 25 pair of Snowy Egrets, also Ward's, Louisiana, and Green Herons.

J. A. Carruthers, Edgerly, La., guarded Cameron Island, Black Bayou, Fifth Lake Bayou, Ged Island, Lost Lake, and Heron Island of Calcasieu, which were the homes of 80 Roseate Spoonbills, 150 Large Egrets, 6,000 Snowy Egrets and many thousands of Ward's, Black-crowned, and Yellow-crowned Night Herons and Louisiana Herons.

R. D. Camp, Brownsville, Texas, guarded Green Island, Moro Island, and Three Islands. The birds resorting here were: Reddish Egret, 4,000; Louisiana Heron, 5,000; Ward's Heron, 6,000; Black-crowned Night Heron, 300; Snowy Egret, 50; Large Egret, 15; Least Tern, 300; Black Skimmer, 500 and Roseate Spoonbill, 75.

The income from the Mary Dutcher Fund was used in this work.

MISCELLANEOUS AND FINANCIAL

The past year our Supply Department sold at cost of manufacture and handling, 1,044 stereopticon slides. Several thousand dollars worth of Educational Leaflets, bird-books, field-glasses, bird-charts, and other aids to bird students were also supplied to the public. From the home office there were issued 2,025,000 Educational Leaflets, and other circulars to the number of 740,000.

Within the year there were enrolled 152 life members at \$100 each. The amount realized from this source, together with \$1,148.55 in gifts, and \$1,191.72 transferred from the general surplus totals \$17,540.27 that have been added to the General Endowment Fund.

The gift of \$200,000 referred to above, and which by request of the donor will be known as the 'Permanent Fund of 1922,' was upon its receipt temporarily invested in Government bonds. Later, when a permanent investment in the form of mortgages was arranged for, the Government bonds were disposed of by your Finance Committee at a higher rate than the original cost. The Permanent Fund of 1922 therefore stands today at \$201,851.42. Only the interest from this will be used from year to year.

The number of sustaining members, the fee for which is \$5 annually, has been advanced to 4,553. The total income of the Association for the year was \$335,101.42.

DISTRIBUTION OF MEMBERS

The following statement shows the distribution by states of sustaining and life members of the National Association of Audubon Societies as these existed at the close of the fiscal year, October 19, 1922:

	SUSTAINING MEMBERS	LIFE MEMBERS	TOTAL
Alabama.....	3	2	5
Arizona.....	3	1	4
Arkansas.....	3		3

	SUSTAINING MEMBERS	LIFE MEMBERS	TOTAL
California.....	94	42	136
Colorado.....	22	7	29
Connecticut.....	339	83	422
Delaware.....	25	8	33
District of Columbia.....	68	26	94
Florida.....	26	6	32
Georgia.....	11	2	13
Idaho.....			
Illinois.....	214	61	275
Indiana.....	40	5	45
Iowa.....	15	4	19
Kansas.....	7		7
Kentucky.....	16	8	24
Louisiana.....	4	5	9
Maine.....	62	22	84
Maryland.....	79	10	89
Massachusetts.....	667	202	869
Michigan.....	94	28	122
Minnesota.....	59	7	66
Mississippi.....	5		5
Missouri.....	79	15	94
Montana.....	5	1	6
Nebraska.....	16	4	20
Nevada.....			
New Hampshire.....	38	10	48
New Jersey.....	259	47	306
New Mexico.....	3		3
New York.....	1372	392	1764
North Carolina.....	18	6	24
North Dakota.....	2		2
Ohio.....	190	61	251
Oklahoma.....	4		4
Oregon.....	11	1	12
Pennsylvania.....	411	87	498
Rhode Island.....	85	39	124
South Carolina.....	15	1	16
South Dakota.....	4		4
Tennessee.....	6	1	7
Texas.....	18	5	23
Utah.....	4		4
Vermont.....	33	11	44
Virginia.....	14	6	20
Washington.....	11	3	14
West Virginia.....	15	1	16
Wisconsin.....	44	10	54
Wyoming.....	2		2
Foreign.....	38	12	50
	4553	1242	5795

REPORTS OF FIELD AGENTS

REPORT OF EDWARD HOWE FORBUSH, FIELD AGENT
FOR NEW ENGLAND

It is difficult, year by year, to report on the New England territory without referring to the excellent work of the Audubon societies of the New England States and, in part, duplicating the reports of the secretaries of these organizations. Your agent for New England will, however, continue the policy of confining his report, as far as possible, to matters outside of their many activities.

During the year 1921 the Heath Hen of Martha's Vineyard apparently not only failed to hold its own but decreased considerably in numbers, owing largely, it is believed, to late spring frosts which occurred at a time when many of the females had deposited their eggs and before they had commenced to incubate. But if the census of the birds taken by John A. Farley in April, 1922, can be considered fairly accurate, there must have been many fatalities among the adults since the census of April, 1921. As there were few northern Hawks and Owls on the islands last winter, suspicion must fall on hunting cats and human hunters.

From information received during the past summer it seems probable that the birds had a more successful breeding-season than in 1921, but no definite statement regarding the increase or decrease for this year can be made until the shooting-season and the winter have passed.

It seems that the Herring Gull in New England has about reached the maximum of numbers within which it may be properly classed as a useful species. Further increase in its numbers may result in some change of food habits so that the species may become injurious. Complaints of the destruction of clams, fish, and scallops in Massachusetts by this species and of raids on young chickens and blueberries in Maine indicate that its numbers have about reached the limit of its normal food-supply. If it continues to increase, it may attack the grain in the fields, as under strict protection, it did in the British Isles.

Apparently, as the Gulls increase on Muskeget Island the Terns decrease. Both Herring Gulls and Laughing Gulls are increasing there. Possibly we are giving the Gulls too much protection there. The Terns on the Massachusetts coast generally have held their own very well this year, in spite of the fact that hundreds of young Terns died early in the season as a result of heavy rains, and other hundreds starved to death when nearly ready to fly, probably because of a lack of sufficient food in nearby waters. This was particularly noticeable at Chatham, Mass., where practically all the Terns concentrated on one island. As the island lies close to shore, there were only the ocean to the eastward and the waters of the harbor to draw from. On islands at a distance from the shore from which the birds can fish in every direction, they have a much better chance

to obtain sufficient food. The colony at Monomy is more favorably situated, and as the Massachusetts Conservation Commission, through the good offices of Director William C. Adams of the Fish and Game Division, employed a man to destroy the numerous cats, skunks, and other enemies of the Terns at that station, this colony did well. An attempt was made to pass an act in the Massachusetts Legislature to set aside Penikese Island as a reservation for Terns, sea-birds, wild-fowl, and shore-birds. This bill failed of passage. The state now keeps a man on the island and protects the birds there, but under the present law the island will be sold whenever an adequate price is offered. The sale of this island may be the death-knell of this great Tern colony. Some friend of the birds should buy it and present it to the National Association of Audubon Societies. Penikese and Muskeget are the only two islands off the Massachusetts coast on which there is a chance of preserving Tern colonies perpetually. All the other islands are in harbors or close to the coast and will be occupied eventually by summer residents. None of the Massachusetts coast colonies of Common Terns succeeded in rearing enough young this year to keep up their numbers. The Roseate Terns on the islands may have held their own but there are few Arctic Terns there. The Least Terns did well this year. They have scattered along the coasts of Cape Cod and Martha's Vineyard and have occupied new nesting-sites. More young birds were in evidence at the close of the breeding-season than for many years. The only chance the Least Tern has to perpetuate its race is to scatter in small groups along the coast, like the Piping Plover, which, under protection, has risen in a few years from a rare breeder approaching extirpation to a common summer resident on many suitable New England shores not completely overrun by summer people.

The dangers to bird-life are constantly increasing. Now come the automobile, the airplane, the electrification of steam railroads with their additional strings of wires, and last, but not least, the oil danger.

Fuel-oil cast upon the sea or into harbors has destroyed, during the past year, hundreds of birds in New England waters. Geese, Ducks, Loons, Puffins, Murres, and Auks seem to be the principal victims. Shore-birds apparently suffer little, and few Gulls and Terns seem to be affected. Much of this floating oil comes from pumping waste oil out of the bilges or tanks of steamships. Now and then a wreck of a tanker occurs which liberates thousands of gallons of oil on the surface of the sea, to destroy nearly every bird that is once immersed in its sticky flood. The pumping of waste oil into the sea should be stopped. This oil can be utilized. The Japanese use it. Are the Whites their inferiors?

The New England States as a section seem to have taken the lead in the bird-banding movement inaugurated by the Biological Survey. During the past year the New England Bird-Banding Association has been organized, and now numbers hundreds of members. The value of this work is fully appreciated in these states, and Laurence B. Fletcher, of Boston, the enterprising and

active corresponding secretary and treasurer of the Association, has stirred up an ever-increasing interest in the work. Bird-banding always increases the interest in the living bird. Bird-banders, of necessity, become bird-protectionists. Each one soon finds it necessary to be on the alert against the many enemies of birds if he would be successful in trapping and banding them. If he attempts merely to band fledgelings, he must protect the nests so far as possible, and is soon led to erect bird-houses for the better accommodation and protection of certain species. The bird-banding movement, therefore, is one that the National Association should encourage throughout the land.

REPORT OF WINTHROP PACKARD, FIELD AGENT FOR MASSACHUSETTS

The Audubon Society offices, at 66 Newbury Street, Boston, occupied jointly by the Massachusetts agent of the National Association and the State Society, have teemed with activities throughout the year. The chief cares of your agent are threefold: First, to find members for the Association, both life and sustaining; second, to push the work of the Junior Classes in Bird-study throughout the schools of the state; third, to continually place before the public the needs not only of the Association but of the birds themselves. All these are great and worthy ends and for them we labor unceasingly. Your agent has been in correspondence with every school superintendent and teacher in the state concerning the use of the leaflets and the formation of Junior bird-study classes in the schools. As many schools as possible are visited each year and the Junior Club plan is explained to teachers and pupils in ten-minute talks.

A generous appropriation from the home office last spring made it possible to engage two trained assistants for this work, thus making it much more effective. Your agent finds that almost invariably the children receive the opportunity gladly and are eager to take advantage of it: many teachers also, but there is still great need of missionary work among others, and there are still superintendents, especially in large cities, who are not willing to give time to bird-study. One way of reaching them is through the general enlightenment which the public still needs in regard to bird-study and bird-protection. This work is being pushed at the Boston office through the press, lectures, exhibitions, assistance in legislature, and individual action in all possible ways.

REPORT OF WILLIAM L. FINLEY, FIELD AGENT FOR THE PACIFIC COAST STATES



CTOBER, 1922, finds your western agent still increasing the output of motion-picture films of wild birds and animals. During 1921, a series of reels which we released on the theatrical circuit in the United States and foreign countries, through the Bray Pictures Corporation and the Goldwyn exchanges, brought a great deal of publicity for wild-bird and animal protection among a large class of people who give these matters little attention. During the past year, another series of seven reels was released, also bearing the name of the National Association of Audubon Societies. The titles for these reels were written by Katharine Hilliker, one of the most expert title writers in the country, with the idea of giving them a popular touch necessary to reach the theatrical public. The subjects released were as follows:

(1) 'High Water,' a series of pictures around Crater Lake and other high lakes of the Cascade Range. (2) 'Page Mr. Edison,' motion pictures in Mt. Rainier National Park illustrating mammals and birds, especially the life of the White-tailed Ptarmigan and how she is protectively dressed both in summer and winter. (3) 'The Climbing Mazamas,' showing mountain climbers on their trip to the top of Mt. Rainier with some of the wild folk they met. (4) 'Angling in Oregon Waters,' illustrating the life history of the salmon of the Columbia River. (5) 'Healthy Appetites,' picturing a trip around Mt.



CHILDREN FEEDING GULLS ON OREGON COAST
Photographed by William L. and Irene Finley

Jefferson in the Cascade Range, with camp views and how some of the birds and animals are attracted when food is furnished them. (6) 'Ups and Downs,' a story centered about Klamath Lake Reservation with remarkable flight pictures of White Pelicans, as well as studies of Herons, Phalaropes, Grebes, and others. (7) 'Wanted, a Fumigator,' a series of amusing experiences with skunks, bob-cats, and other wild animals.

In order to meet the demand for high-grade educational material, both on the theatrical circuit and for schools and colleges, our efforts during the past year have been centered in making up a series of twelve reels of motion pictures covering as completely as possible a general work on American natural history.

The different chapters in this series begin with some of the lowest forms of the animal kingdom, such as the corympha and sea-anemone, and follow the steps in the evolutionary development through the more primordial forms of life up to man. The special subjects treated are the struggle for existence, the story of animal intelligence, social nature of wild folks, how birds and animals are equipped to take their parts, their friendship for man, and other phases.

A series of four reels of motion pictures have been made up especially for the National Association of Audubon Societies, illustrating the work among children in building and putting up bird-houses, the various wild-fowl reservations which have been established, and other phases of Audubon work.

During the past year, the Oregon Fish Commission, at the request of a few commercial fishermen, have continued their efforts in exterminating the Steller sea-lions off the Oregon coast because certain salmon



fishermen thought these animals were living on salmon and thus injuring their business. This destruction has gone on, although a warning was sent to the Oregon Commission by Harold C. Bryant, who is in charge of education and research for the California Commission, to the effect that it is a mistake to destroy sea-lions, as the investigation carried on by the California Fish Commission showed that the sea-lions were living largely on squids and octopi, rather than salmon.

Up to last summer, the sea-lion colonies on Three Arch Rocks Reservation had never been molested to any extent since its establishment by special



SEA-LION PUPS AND TWO FEMALES, THREE ARCH ROCKS RESERVATION, OREGON
Photographed by Finley and Bohlman

proclamation of President Theodore Roosevelt, on October 14, 1907. During the past summer, however, the reservation has been continually raided. Mr. Hunter, who was employed by the state of Oregon, told H. H. Rosenberg, of Tillamook, Ore., that he killed one hundred and seven sea-lions on Three Arch Rocks Reservation on his trip up the coast in the early summer. Mr. Rosenberg who has a hotel at Maxwell Point opposite Three Arch Rocks, is interested in seeing that the Federal law, which provides that no one shall molest or disturb birds or animals on a Federal reservation, is enforced.

As late as August 23, he sent a letter to R. C. Steele, United States Game Warden, of Portland, Ore., that on Sunday, August 20, "a small power boat appeared off Three Arch Rocks and anchored. A small boat containing two men then left the power boat and rowed to a small rock where the sea-lions usually stay. They shot about a dozen shots and then rowed on around the

rocks and back to the power boat. They were on the rocks from thirty to forty minutes. While they were shooting, the birds were flying in every direction from being molested and we have seen no sea-lions on the rocks since. This power boat had about ten or fifteen persons aboard, and we think was from Tillamook Bay."

In talking with Mr. Steele since that time, he said that he spent several days in Tillamook, but was unable to get sufficient evidence to warrant bringing the matter into the Federal court.

The situation in regard to Malheur Lake Reservation, which was created by proclamation of President Theodore Roosevelt, on August 18, 1908, is



MR. AND MRS. VERNON BAILEY FEEDING GULLS NEAR THREE ARCH ROCKS
RESERVATION, OREGON

Photographed by William L. and Irene Finley

substantially as follows: The Government had completed plans to file an injunction to determine their right and title to their share of the water of Silvies and Blitzen Rivers. Percy Cupper, State Engineer for Oregon, appealed, through our representatives in Congress, to the Biological Survey to withhold the suit until a conference was held. This was done and representatives from both the state and Federal government met in Salem during the spring of 1921. The proposition put up by State Engineer Cupper was to divide the lake into two parts, building a dyke to separate the east and west parts of the lake, the state to have the western end, and the Government the eastern end.

Many of those who are interested in seeing Malheur Lake Reservation saved have taken the stand that this would be a reasonable solution providing the state would stand the expense of building the dyke, which should extend across the lake in a northerly and southerly direction west of both the mouths of Silvies River on the north and Blitzen River on the south, and that there

should be a guarantee of enough water flowing into the lake to supply the reservation. This boundary would insure the inclusion of all the large bird colonies at present on the reservation.

During June, 1922, surveyors and representatives, both of the state and Federal government investigated the matter on the ground and while State Engineer Cupper has not yet offered a proposition in writing, it may be that some compromise can be made which will be accepted by the Government.

REPORT OF ARTHUR H. NORTON, FIELD AGENT FOR MAINE

While the winter was very mild in this state and favorable to the wintering of wild birds, the early summer was remarkable for its excess of rain. This was fatal to many birds nesting in open places and in lowland water-courses. Terns raised almost no young in Maine this season, and the single colony of Laughing Gulls, which has prospered for the last few years, fared as badly. Herring Gulls were less inconvenienced by the weather conditions and raised a good many young, while Black Ducks, which have been breeding in increasing numbers for the last few years, seemed to have passed through the rains with comparatively little loss of young. Ruffed Grouse, which had recovered from the serious depletion of three to four years ago, nested in considerable numbers, but, hatching just before the heavy rains, seem to have lost many young. Robins, Swallows, and Swifts are known to have suffered much inconvenience through this cause.

The fall has been very dry, and the condition of the forests and the prevalence of late forest fires raging in various parts of the state have caused the Governor, for the first time in our history, to issue a proclamation prohibiting the hunting of all woodland game in the state until such time as conditions warrant the safety of the forests. In response to the request of the United States Game Warden, Bertrand G. Smith, I again went as pilot on a trip by water along the coast in early May, from Portland to Roques Island in Englishman's Bay, visiting the islands and ledges where gunning for sea-birds is practiced. On this trip we were able to locate several new, or previously unnoticed, breeding-places for a number of species of birds.

Several small groups of Eider Ducks were observed at places where they have not been noticed before at this season; half a dozen Black Ducks, undoubtedly the mates of breeding females, were found to be stopping at Flint Island. A small colony of Great Blue Herons was found breeding near Jonesport and with them several Ospreys, and various other pairs of the latter at other places in this vicinity. Herring Gulls were found at all of their regular breeding-places along the route of our course, and new colonies were noted at Otter Island of the Vinal Haven group. This is an old breeding-place for this species, but they had been expelled from it about twenty years ago. Later in the season

I availed myself of the coöperation of the Commissioner of Inland Fisheries and Game, Hon. Willis E. Parson, and his warden, Capt. Herbert L. Spinney, and visited a number of other colonies of birds.

As a result of these investigations it appears that Leach's Petrels are again breeding in small numbers at Pumpkin Knob, one of the Damascove Islands. A good-sized colony of Herring Gulls are also located there, but the Terns which formerly occupied the place have disappeared. The colony of Herring Gulls at White Bull in Casco Bay has increased largely, several hundreds breeding there this year. I have mentioned the return of these birds to Otter Island and its small satellites, all of the Vinal Haven group. These hardy birds have maintained their hold on nearly all of the colonies newly occupied by them within the last few years, and this season they succeeded in raising many young while less hardy species failed. Many Laughing Gulls came to Maine this spring and remained all summer, though they seem to have raised few, if any, young. The adult birds were commonly seen twenty miles east of their breeding-place through the summer for the first time for many years. They also ranged, as is usual, 20 miles west of that place.

Terns, with the constant increase of the Herring Gull, have been constantly driven to smaller islands and even dry ledges where they have never before been known to colonize. As I have stated, these birds raised almost no young owing to the heavy rains. Eider Ducks are lingering at many places along the coast where they have not been known in summer for years, and it is probable that some are soon to be, or now are, breeding at new points. Red-breasted Mergansers remained all summer as far west as Casco Bay, and one pair was said to have nested within these waters. One pair of Canada Geese remained all summer in the waters of the lower part of the Kennebec River. A colony of Great Blue Herons was visited in Boothbay. There were about fifty nests, all containing young birds in early June. Night Herons are in much less evidence than they were a few years ago. Ospreys, in some sections, appear to be increasing, and Bald Eagles seem to be holding their own, if not increasing.

The Piping Plover continues to breed on our shores. A few Bartramian Sandpipers were seen in the vicinity of Portland late in July. Harbor seals which have become, within the last twenty years, much reduced in numbers are now to be found in considerable numbers in several colonies chiefly west of the Penobscot waters. The Katahdin Park proposition, which, so far as territorial possession is concerned, was defeated at the last session of the state Legislature, has been declared a game preserve by the Commissioner of Inland Fisheries and Game and regulations declared March 31, 1922. By this decree 90,000 acres, more or less, containing, among other rare animals, moose, black bears, beaver, Spruce Grouse, Pileated Woodpeckers, Canada Jays, and Northern Ravens, have become a wild-life preserve. I visited this territory in September. It contains not only Mount Katahdin, the highest and wildest mountain in the state, but also a wide expanse of wild land about its base. Fresh

tracks of a moose, now roaming these wilds in security, were seen within a mile of a popular public camp. A colony of beaver on the stream between Elbow and Grassy Ponds had increased. Through various influences, among which the work of the Audubon Society for the past twenty years has been a part, there is now a widespread interest in the study of natural history, and especially birds and their protection, throughout the state. During the year a new and active bird club has been organized in the city of Gardiner. Two of the older clubs, the Stanton Bird Club of Lewiston and Auburn, and the Cumberland County Audubon Society of Portland have been incorporated for the purpose of more fully carrying on their work. The well-organized bird clubs and Audubon Societies of the state, of which there are no less than seven, have all been active, as will be seen by their several reports. It is with great satisfaction that I am able to announce that between these local clubs there exists the utmost feeling of good will and desire for coöperation.

Besides these clubs, many other organizations within the church, literary clubs, and the organizations for young people, in carrying out their annual programs desire talks on various natural history subjects, and especially on birds. These demands I have met on many occasions, and now the various clubs are doing much more by furnishing trained students from their own membership to carry on this phase of the work. Governor Baxter, who in 1921 proclaimed a state-wide bird-day, calling especially upon the teachers of the public schools to observe the day with appropriate exercises, repeated the custom this year, and it is safe to say that there was hardly a school in the entire state but carried out the purposes of the proclamation to the best of its ability. On this day hundreds of thousands of children answered this great muster-call eagerly, to listen to exercises and exhibit their own work for a better knowledge of birds and their usefulness to man. If much has been accomplished since the zeal of William Dutcher and Abbott Thayer were the guiding stars of this great Association, it but reminds us forcefully of our greater responsibilities to a great and awakening public.

REPORT OF EUGENE SWOPE, FIELD AGENT FOR OHIO

Early in 1915, some of the Ohio conservationists and agriculturists were instrumental in having the Bob-white legally classed with all protected birds of the state. Ohio bird-census takers, reporting Christmas observations to BIRD-LORE six weeks prior to the enactment of this law, do not mention even *one* Bob-white in their lists. Now it may be only a meaningless coincident, but every Ohio Christmas census since 1914 mentions many Bob-whites. It would seem that the birds must be more numerous since they are not hunted. It is also likely that they are less shy and census-takers find them in the open, when formerly hunting dogs were necessary to get them out. In every part of the state where conditions are at all suited to the Bob-white's welfare, observing

people declare that their numbers yearly increase. The cartoonist of the *Columbus Dispatch* tells this story tersely. "The experiment has succeeded so far," said a Cleveland Audubon member, "and the peeved pessimists are awfully disappointed."

Ohio educators have taken earnest notice of the nation-wide question, "What's wrong with our schools?" Many have answered, "Too many frills and fads, for one thing, are being forced upon the attention of the children." Some educators did not distinguish between the helpful and the useless supplementary subjects, and moved to rule out about everything not in their curriculum. This move discouraged progress in our Junior work last year, but it will gradually become nonactive and our work will advance.

Here is one outstanding fact about Ohioans and birds: Ever since the National Association of Audubon Societies began giving its generous aid to the cause of bird welfare in the state, the people's interest in birds has steadily and pretty generally grown. In many communities, interest had to be developed

OHIO MUSIC



CARTOON FROM THE COLUMBUS (OHIO) DISPATCH OF JUNE 1, 1922

against antagonism. Pioneer bird-protective teaching was resented by certain communities as insidious attempts by outsiders to interfere with personal liberty. But now, in just such communities, can be found one or more leaders in bird-welfare, locally and pridefully known as 'Our bird man,' or just as often, 'Our bird woman.' Wild-life conservation interests in all large progressive communities has forged ahead until it is now taken for granted that everyone is friendly toward wild birds; exceptions stand out and are marked as cases of retarded conscience. It is common in these communities to meet people with highly creditable knowledge of birds, acquired in recent years.

The genesis of all this healthy, growing interest is found mainly in the Junior Bird Clubs. Ohio conservationists owe much to the National Association for making this work possible in the schools of the state, and their high appreciation should be shown those earnest teachers who have had the vision to foresee and the courage to work for a better relation between men and birds.

REPORT OF FRANCES A. HURD, SCHOOL SECRETARY FOR CONNECTICUT

The time of our Connecticut field-worker is devoted largely to the organization of Junior Audubon Clubs. The past year 219 were formed, with a membership of 8,134. During the spring, the school secretary traveled over a thousand miles in the state, giving bird-talks to several thousand children who were eager to hear about the birds. She also spoke before a number of audiences. An entirely new field for Audubon activity was presented in the eastern part of the state, where school superintendents, teachers, and pupils were found to be actively interested in bird-study.

The principal of one of the larger schools reports taking a class out once a week for an early morning bird-walk, and a number of his teachers have formed Junior Audubon Clubs. In this same town the Women's Club engaged a bird-man to lecture for them, and the pupils of the village and rural schools were invited to hear the lecture. The children afterward wrote interesting accounts of it.

The eastern part of Connecticut is thinly settled and there are many small rural schools scattered over a large area. Teachers were found here who, with only a limited knowledge of birds, were arousing the interest of their pupils in the subject. In a few it was pathetic to find ears deaf to the bird-music of nearby woods and fields. It made one wish that every schoolroom might have hanging on its walls the Audubon bird-charts which are such a delight to pupils wherever they are used, and that it were also possible for every child to belong to a Junior Audubon Club.

In a kindergarten class visited at one time by the school secretary, the teacher asked her to let the children tell the names of the birds as she showed them the bird skins. The tiny tots had, during the year, looked at the bird-

charts and been taught the names of the birds so that they readily identified twenty of the skins as they were shown. Upon a visit to one of the Bridgeport schools, it was learned that the principal and one of the teachers and her pupils had visited Birdcraft Museum in Fairfield the day before, and they gave most glowing accounts of their experiences. It was a pleasure to find such intelligent interest and to answer their questions. Other classes were also planning a visit to the Museum.

From one of our small rural schools, which every year has had its Junior Audubon Club, came a letter saying, "Mudder" thought these two little people too small to join, but when an older brother, only ten, but active in our meetings, received his treasured button and leaflets, the pleas of the other two could not be resisted; hence two more dimes and two more members." In one of the smaller schools, a little child in the first grade, to show his appreciation of the talk, came up to me as his class was leaving the room and surprised me by putting his arms about me and holding up his little head to kiss me. A supervisor of several rural schools, who has laid great stress on nature-study in the schools under her supervision, writes, "I hear enthusiastic accounts of your work everywhere you have been, and I thank you most heartily for the excellent work which you have done for us."

The teacher of a little country school, with only sixteen pupils, writes, "The Audubon leaflets have been received. The children are very happy and send a big 'Thank you.' It is perfectly splendid to think we can have BIRD-LORE. Our club meets once in two weeks and we color the outline picture and talk about the birds. In the spring we take walks and observe the nesting birds. We try to interest others in bird protection." Interesting accounts of the work come from all parts of the state, and one cannot help but feel that they are particularly privileged in having this opportunity to arouse the dormant interest of the school children in bird-study.

REPORT OF HERBERT K. JOB, DEPARTMENT OF APPLIED ORNITHOLOGY

During the past year the work of our Experiment Station at Amston, Conn., has made more progress than ever before. Previously we have been handicapped by lack of sufficient funds for operating purposes. By the recent organization of the 'Amston Lake Club, in coöperation with the National Association of Audubon Societies,' this work now has the support of a considerable and increasing group of prominent business and professional men. Owing to this support, we have been able to employ Henry A. Bowden, who, with his family, resides on the Preserve the year around. Mr. Bowden is one of the most skilled and successful of professional English gamekeepers, with life-long training in the work, and who, because he loves it, is willing to bestow upon each detail the infinite patience which brings results.

Though it was generally a bad season, owing to the incessant rains and the spreading invasion by myriads of rose-chafers, poisonous to young birds, we were able to bring to maturity about eleven hundred young Pheasants, besides a number of other species. Total sales, all for purposes of liberation and restocking, amounted to \$3,000, and we also retained several hundred dollars' worth of stock for next year's breeding.

This season we resumed our work with Quails, breeding the Bob-white and the California Valley Quail in a small way. We hatched two broods and raised most of these birds to maturity. It is interesting to note that from our past breeding and releasing we had, last winter, on the Preserve a fine covey of fourteen Valley Quail in the wild state, coming to feed regularly at one of the barns, showing that this introduced species can survive New England winters. These have now been maintained for at least three years in freedom, originally from young birds which we raised, so it is possible that the species may increase.

In our work with water-fowl, this year, we raised Redheads and Wood Ducks. That there is especial interest in breeding the latter species is shown by the fact that they are in demand, even at \$35 a pair. It also indicates that, by present methods, they are not easy to raise. We are evolving a new method for quantity production which we plan to try out in full next season, as also the breeding and rearing of the Gray or 'Hungarian' Partridge of Europe, with which Mr. Bowden has had long experience. Work with the smaller birds has been continued, as before, and the bird-boxes have been abundantly occupied



VIEW FROM FRONT PORCH OF NEW HEADWATERS, AMSTON, CONN.

Photographed by Herbert K. Job



BANDED FEMALE OSPREY AT NEST, GARDINERS ISLAND, N. Y.
From new Audubon film 'Feathered Camp Intimates.' Photographed by Herbert K. Job

Since our first publications in applied ornithology, funds have been lacking for publishing the results of our later experimental research work, but it is now probable that further needed publication can be made in the near future.

Class instruction work at Amston was not resumed this season, owing to the pressure of other work there, and the photographing of another reel of educational pictures of wild bird-life. This film 'Feathered Camp Intimates' will be available before this report is read. It will also be issued and distributed by The Fox Film Corporation, New York City. Correspondence, demonstration, and lecture work have been conducted as before. In lectures for the coming season under the Department, besides the above new reel, we also expect soon to have available several other new films, the result of our last season's expedition to the coast of Maine, northern Nova Scotia, the Magdalen Islands, and the Bird Rocks. Application for lecture dates may be made to the New York office of this Association.

REPORT OF MARY S. SAGE, FIELD AGENT FOR LONG ISLAND, NEW YORK

For the first time since I have been working on Long Island, I had to cancel some appointments on account of sickness in the schools last winter, and bad weather interfered several times, as well. So many pupils were absent in some schools that the principals asked me to wait until more could be present. In some schools, where two or three talks are generally given, all the pupils were assembled at one time, so the number of talks and lectures will fall below what would be the regular number, had conditions been normal.

I have had several requests to speak outside of Long Island, and have gone when it did not interfere with the regular work. I have spoken in Philadelphia (Pa.), Newark and Elizabeth (N. J.), Valhalla, and New York (N. Y.). Several clubs have asked for lectures, and I have spoken before the Women's Club, Farmingdale, Women's Club of Garden City, Women's Club of Bellerose and the South Woods Nature Club. At Valhalla I talked to the children in the Jennie Clarkson Home, at Elizabeth, the Monday Evening Club and the Pingry School for Boys.

The Newark Bird Club had two lectures, the Bird and Tree Club of New York City, one, the Parent-Teachers' Association of Southampton, one, and the Boy Scout Troop, Oyster Bay, one. Since returning to Long Island for the work this winter, I have been to the Setauket Neighborhood House, the Winnwood School, private, and many public schools. In all, since the last meeting of the Association, I have given 121 talks and lectures, have been to 54 towns and villages, 6 private and parochial schools, and the Sound Avenue Grange, and have appointments to speak at other Granges. I have traveled from Forest Hills to Orient Point on the North Shore and as far as East Hampton on the South Shore.

In June I was asked to judge some bird-houses at Great Neck, and at Patchogue the teacher of manual training has taken up the making of bird-houses with enthusiasm. A prize has been given by the Bird Club for the best bird-house at the last place, the judging to take place some time in March.

The interest on the Island seems to be increasing, if applications to speak in the various schools, clubs, and Granges are any indication. Many of the schools are small, and I have to drive many miles to reach them, but the interest shown makes it worth while.



REPORTS OF AFFILIATED STATE SOCIETIES AND OF BIRD CLUBS

REPORTS OF STATE SOCIETIES

California.—The California Audubon Society had the pleasure of honoring Edward W. Nelson at a luncheon in Los Angeles in November, 1921. Dr. Nelson explained the Federal Public Shooting-Grounds and Bird-Refuge Act before an audience representing various scientific societies of the Southwest as well as the state and local Audubon Societies. At the annual meeting in June, 1922, a luncheon was well attended by representative members of Pasadena and Los Angeles Audubon Societies, the Bird Club of the Southwest Museum, and the Field Department of Los Angeles Boy Scouts.

Beside the secretary's report, the program consisted of local reports, greetings from directors and the showing of the Oregon Audubon set of slides by our honored 'secretary-for-twelve-years,' Mrs. Harriet Williams Myers, whose comments were chiefly from personal knowledge of the birds shown. As a new feature, the secretary's report brought into the limelight the work of the individual directors all over our big state. From a Los Angeles radio station, a university professor broadcasted bird-songs and calls, with talks on the Nature Guide Service in Yosemite National Park. The Service this year employed four assistants, under that 'high-power biologist,' Dr. H. C. Bryant. Two of the men and one woman are particularly good in bird-lore and field-study of birds. The interest of the public is multiplying rapidly.

Our directors in Modesto and Riverside have done notable work in giving Boy and Girl Scout and Girl Reserve tests in stalking, forestry, botany, and birds. Our warning cards, with summary of state law, have been posted through the coöperation of Junior Audubon members and Scouts. Our officers have made many addresses on bird and conservation subjects before children in schools, high schools, women's clubs, and churches. High schools have given school credit for the lectures. No pay is received; we spend money only for stamps and printing a small amount of original literature.—(Miss) HELEN S. PRATT, *Secretary*.

Colorado.—At the last annual meeting of the Society, a report was made, showing that an effort had been put forth to induce county and city superintendents of the state to influence more of their teachers to form Junior Audubon Clubs. The Society has on hand a supply of bulletins which leaders of Junior Clubs may obtain free of charge. Many teachers availed themselves of this opportunity to obtain helpful literature. The Society also has a lantern and a collection of about 300 slides which may be obtained at a nominal rental when desired for educational purposes.

Dr. W. W. Arnold, of Colorado Springs, who is a charter member of this

Society, still continues his bird hospital, where he cares for injured birds which are brought to him by the children and bird-lovers of the city. Though there has been some agitation in regard to his giving up the hospital, due to the fear that the work is too heavy for him, Audubon members and others interested in bird welfare sincerely trust that he will decide to continue his interesting and humane work with wounded birds. President E. R. Warren and Vice-president W. H. Bergtold were instrumental in causing the arrest of a rancher who, seeing a very large Pelican swimming on a lake near Colorado Springs, could not resist shooting this unusual visitor. The work of the Society this year, then, has been of the usual character, active in the direction where its energies seemed most needed.—EDNA L. JOHNSON, *Secretary-Treasurer*.

Connecticut.—We are glad to report a very successful year. There has been great activity at headquarters, in Fairfield. Six business meetings of the Executive Committee have been held. Our Field Day, in June, at Birdcraft Sanctuary, was a delightful occasion. There was a large attendance of members from various parts of the state.

The morning session was held in the local theatre. Mr. Wolcott, president of the Fish and Game Commission, spoke on 'What the Commission Is Doing to Help Bird-protection,' and aroused much enthusiasm. Mr. Morgan and Wilbur Smith talked of experiences with birds and wild flowers, both of which talks were illustrated by very beautiful colored slides.

Mrs. Johnson, of Hartford, gave a summary of work done by the State Board of Education with materials furnished by the Connecticut Audubon Society. From promoting interest in bird-protection, the educational side of the matter has grown to fill a large place in teaching science and nature-study in the state. The traveling libraries include many branches of science other than bird-study, and with the illustrated lectures on trees and flowers, the Society is contributing to visual education in botany. Charts, libraries, and lectures have been sent, not only to public schools, but to Boy and Girl Scout Troops, summer camps, Granges, churches—in short, to almost every sort of welfare organization, a significant fact being the interest aroused among the women in two of the state penal institutions by means of the lectures on birds and flowers.

After the morning session in the theatre, luncheon was served on the Sanctuary grounds, under the trees. Bird-walks were enjoyed in the afternoon. The most important piece of work accomplished this year has been the addition to the Museum of a third unit—a study-room, having its shelves filled with birds arranged according to order, genus, and species. This shows Connecticut birds—male, female, and immature—labeled with common and scientific names, and one case is devoted to the birds of the current season. There is opportunity for a thorough and satisfactory acquaintance with all birds, resident or visitors, in our state. This completes the Museum.

The warden at Birdcraft Sanctuary, the place that continues to be our greatest factor in popular teaching, reports a more specialized interest. Those that came at first merely to see and be amused are now becoming real students, and many young sportsmen are hereby learning what may or may not be hunted. A large delegation of the Fairfield County Game Protective Association visited the Sanctuary recently. Game Warden W. F. Smith gave an illustrated lecture and Warden Novak spoke on the life and habits of shore-birds, illustrating with mounted specimens.

Another feature of our work this year has been a weekly exhibit, in the Museum, of the wild flowers in their season. A member of our Executive Board and a special committee of the Fairfield Garden Club arranged these exhibits, each specimen flower being placed by itself and labeled. This side line has been very attractive, leading up to the important teaching that plants, either in flower or fruit, are necessary to bird-life. It will thus be seen that the bypaths opened through bird-study and -protection are many and varied.—CHARLOTTE A. LACEY, *Secretary*.

District of Columbia.—Our Society was twenty-five years old last May being the eighth Society to be formed in the United States. On May 18, 1897, twelve persons met at the residence of Mrs. John Dewhurst Patten and formed the Audubon Society of the District of Columbia. Of these twelve, nine are still members of our Society. During these twenty-five years we have had two presidents, three treasurers, and two secretaries. This year, at our annual meeting, an enthusiastic audience listened to Dr. A. A. Allen's lecture on 'Birds and their Relation to Man.' Our five bird-study classes had a total enrolment of 177 this spring; of these, 9 were teachers, 18 Girl Scouts, 3 Camp Fire Girls, and 17 were Boy Scouts.



BLACK POND, NEAR WASHINGTON, D. C., WHERE, ON MAY 27, 1922, MEMBERS OF THE DISTRICT AUDUBON SOCIETY COUNTED 59 SPECIES OF WILD BIRDS

The classes were followed by six field meetings, and though several of the Saturdays were stormy, 109 persons went on the walks and 128 species were identified. Our greatest excitements this year were the appearance of a flock of Evening Grosbeaks, never before recorded in the District of Columbia, and the Brazilian Cardinal which for weeks dined at Professor Bartsch's feeding-station. It is probable that it had escaped from the Zoo. On April 3, the eighty-fifth anniversary of John Burrough's birthday, our Society assisted at a memorial tree planting.

One of our members told me that her aunt picked up a young bird which had fallen from the nest. As she could not put it back, she "brought it up by hand." Its favorite perch was on her shoulder, with its head tucked under her collar. When she had callers he would be jealous and peck her cheek. She called him 'Nig' and would say, "Come, Nig, read the paper," and while she held it he would walk along the top and peer over the sides. Then she would say, "Come, Nig, thread the needle," and after she had put the thread through the eye, Nig would take it in his beak and pull it farther through—and he was just an English Sparrow!

One day last winter I heard a curious noise, as though someone was breaking ice. On looking out of the window I found the water in the bird-bath frozen solid and a Flicker was pecking at it and sending the bits of ice flying. As soon as he had gone I went out, cleared the pan of ice, and filled it with water. The pan had a tiny leak and when the Flicker returned he found that by perching on a ledge below he could hold up his head and the water would drop into his bill. In a minute the Sparrows were doing the same thing.—H. P. CHILDS, *Secretary*.

East Tennessee Audubon Society.—This year has been a notable and memorable one for the East Tennessee Audubon Society. We are very proud to say that we have been the most active of any organization in our state, and therefore have accomplished great success in the work. Mr. Harry Ijams, one of our leading members, owns a wonderful farm, situated on the Tennessee River. Being a naturalist and bird-lover, he has always protected the birds on this wonderful tract of land. In January he offered the Society a lot, if it would get the rest of the land-owners to post their grounds and would build a club-house for its meetings and for educational purposes, to be used by our schools and colleges.

His offer was immediately acted upon, and, as is usual in such cases, a few of our members went to work with a will, determined to win, and the consequences are: One thousand acres of land posted for bird-protection, a club-house for the convenience of bird-lovers, and over two hundred new members. The club-house was built by the members making a drive for subscriptions. It is a three-room house with a large porch overhanging the river, and immediately opposite an island which has no other population than birds. The recep-

tion room will be used for meetings and is large enough to accommodate fifty or more persons. We have had donated quite a collection of birds, nests, and eggs.

Prof. H. C. Fortner, of the University of Tennessee, camped on the preserve in the spring and early summer, and we are delighted with the result of his observations. He found 136 species, 34 families, and 11 orders. So far 65



CLUB HOUSE IN THE BIRD SANCTUARY OF THE EAST TENNESSEE AUDUBON SOCIETY, NEAR KNOXVILLE TENN.

birds were found to be nesting on the reservation. The club-house was named the 'Magnolia Woodward Lodge' to honor Miss Woodward, the founder and mother of our Society. Miss Woodward has been very active in her work in the schools, as has also Mrs. Steinmetz and the writer.—(Mrs.) WALTER BARTON, *Secretary-Treasurer*.

Florida.—The popular conservation movement in Florida of late has been the creating of sanctuaries for the preservation of wild life. So popular has this idea become, as the result of the strenuous work of the Audubon Society, that most of the counties have some agitation along this line, and although Pinellas remains the single instance of a full county sanctuary, there are many of the sixty-one counties striving to obtain it. Thomas Edison, Henry Ford, and Edward Bok have estates in Florida and are making their land bird sanctuaries.

The Junior Audubon Clubs continue to increase, and the Junior members this year will well reach over 8,000. We are considering putting a field secretary in the schools for a few months if funds are available. The demand from schools

and clubs from all over the state has overtaxed the strength of the president, who has responded as far as able to all calls, even to speaking a number of times before the Bird and Tree Club, and other organizations at Chautauqua; at the Interstate Palisades Park conference, and elsewhere during her vacation in the North. This month, in addition, she attended the organization meeting of the Florida Game and Fish Protective Association, being on the program of speakers, and later was made an honorary member of that Association in recognition of her work in the state.

The annual March meeting, which this year was held in Jacksonville, was of three days' duration, and awakened fresh interest in all who attended. At the opening reception, held in the Seminole banquet-room, all the officials, from the mayor down, were in the receiving-line, and the city turned out to welcome the State Audubon Society. T. Gilbert Pearson, president of the National Association of Audubon Societies, made the principal address of the evening. The following morning, which was the opening of Bird Day, Mr. Pearson presented motion pictures made by one of the members of his staff, William L. Finley. These were the finest ever seen in the state. He also talked on the value of the work done by the Audubon Societies. These addresses were so interesting and instructive that since appearing at the Imperial Theatre, many requests have come for a repetition at the next annual meeting, which in all probability will be held in Clearwater, Fla., with the Pinellas County Audubon Society as host.

A day was given to forestry and legislation, when Austin Cary, personal representative of Col. W. B. Greeley, chief United States Forester, gave an illustrated talk on reforestation. On Legislative Day, the speakers of note were Hon. W. A. MacWilliams, President of the Senate, and Hon. Frank A. Jennings, Speaker of the House. In addition, the presidents of the prominent state organizations had five minutes in which to tell how they were coöperating with conservation work in the state. Mrs. Katherine B. Tippetts, St. Petersburg, president, presided, and spoke effectively of the value of our birds and forests and adequate legislation for both. Mrs. Kingsmill Marrs, chairman of the Executive Board, and one of the organizers of the State Audubon Society, came all the way from Boston to be present at the annual meeting, and was an inspiration during the business and legislative work. Mrs. Marrs is at all times a firm supporter of the work of the Audubon Society.

The conservation work now being stressed is that leading to the drafting of a well-balanced game bill and to a unification of sentiment along these lines, that all interested organizations may go to Tallahassee and agree upon a single bill, and seek to enact it early in the session.

MRS. KIRK MUNROE—1852-1922

The following notice is presented by Mrs. Katherine B. Tippetts:

Mary Barr Munroe, wife of the noted author, Kirk Munroe, and daughter

of another author, Amelia Barr, passed away in Cocoanut Grove on September 8, 1922. Mrs. Munroe, herself an author, in the thirty-nine years she had lived in Florida had so effectively associated herself with the life of the state and so jealously guarded its natural resources, that she will be remembered as one of the pioneer conservationists.

Mrs. Munroe was one of the organizers of the Florida Audubon Society, and was the president and organizer of the Cocoanut Grove Society, which always lay nearest her heart. Her work for legislation for protection of the wild life of the state and for the Junior Audubon Clubs, as well as the creation of bird reservations, will remain in our Audubon history as her true memorial. Her presence was always an inspiration, and she occupied an unique position in the state which cannot be filled. She planned for the next annual Audubon meeting while last ill, and wrote to know if we could not have a 'Song-Bird Luncheon' in connection with it, and make it an event.—CLIFTON W. LOVELAND, *Secretary*.

Illinois.—Our activities for this year have been quite varied. The usual lecture course was omitted because of the difficulty in getting as good lecturers as we felt we should have in the work in Illinois, but other work has been done toward bird conservation and the spreading of the gospel of bird protection. A number of reprints of articles which have appeared from time to time in the Illinois Audubon Society Bulletin have been sent out and, the circulation of these bulletins has created an interest in sections of the state in which we have not before been in contact.

The circular entitled 'Cat Ordinances and State Laws' has been sent out as an educational leaflet to assist in arousing a sentiment throughout the state for the proper control of stray cats. It is hoped to get an act through the Legislature at the next session which will put the cat on the same legal footing as the dog. Another circular has been distributed, containing a plan for a course of study for Junior Clubs and for schools. A third reprint contains information, illustrated with appropriate pictures, on the use of bird pictures and the mounting of the same for school-work.

A request has gone to the Society's membership to increase the dues of the active members from \$1 to \$2, and to create a new class of members which shall be called associate members and whose fee shall be \$1. As a result of this appeal we have not only received many favorable responses but have also added a great many new members. During the spring and early summer we received an unusual demand for the United States Department of Agriculture Bulletin entitled 'Fifty Common Birds of Farm and Orchard.' One school alone asked for over five hundred copies. The Audubon Pocket Bird Collection, published by the National Association, has also been very popular.

From December 15 to January 15, 1920-21, a joint exhibit of wild flower and bird pictures and literature was held in the Chicago Art Institute. The

Audubon Society had Dr. Roberts of Minneapolis come and give one of his delightful lectures. The writer, on May 13, attended the joint meeting of the Indiana Audubon Society and the Indiana Nature Study Club at Indianapolis. This was a very delightful gathering and was attended by bird-lovers from many parts of Indiana. A field-trip, a beautiful pageant, and a chicken dinner filled in the program of the day.

The meeting of the A. O. U. is to be held in the Field Museum October 25, 26, 27, and the Illinois Audubon Society, jointly with the Wilson Club, will partake in the entertainment of the distinguished guests who will come from other cities. This is the first meeting of the A. O. U. in the Middle West, and the plans of the meeting include a very fine exhibit of bird paintings, photographs, and so forth. The Audubon Society's Check-List, which has been announced from time to time, is at last in the hands of the printer. The exhaustive work on this Check-List has been done by Benjamin T. Gault, one of the most noted ornithologists of Illinois. It is felt that the Check-List will find a permanent place in bird literature for the Middle West, as it will definitely show, by a colored zonal map, the bird distribution based on geographic and climatic conditions in the state of Illinois.—ORPHEUS M. SCHANTZ, *President*.

Indiana.—During the past year our Society has been unusually active, and, as a result, we note with great satisfaction the increased interest on the part of the public in the protection and conservation of our song-birds.

We have worked in close coöperation with our State Department of Conservation and the Department of Public Instruction. We are making an earnest effort to encourage our state departments to take an active interest in bird conservation. They are taking up the work enthusiastically, and we believe the time is not far distant when the Department of Conservation will employ a state ornithologist.

We have published our regular annual bulletin and, in addition, a special bulletin entitled 'Bird Study for Indiana Schools.' This is intended as a manual for teachers to both encourage them in the organization of Junior Audubon Clubs and to assist them in leading the classes. This manual, of which 20,000 were printed, was mailed direct by the State Department of Public Instruction to every teacher in the state. The inquiries for bird literature and the organization of Junior Audubon Clubs following the distribution of this bulletin was nothing short of remarkable. In less than six weeks we had organized 82 Junior Audubon Clubs with a membership of 3,527.

In coöperation with the Department of Conservation, we have had Prof. A. A. Allen, of Cornell University, prepare a most interesting and instructive lecture illustrated by 100 beautifully colored slides. These are available for the use of any individual, club, or organization interested in bird study.

The annual meeting was held at Indianapolis, May 12 and 13. We had as

our principal speaker, Norman McClintock, of Pittsburgh. More than 1,000 people attended his first public lecture. In the evening he was given a reception at the Herron Art Institute, which was attended by more than 200 invited guests. After the reception he showed his moving pictures of bird-life, which were truly wonderful. These films represent the highest stage of modern motion photography.

On the second day, early bird-hikes were taken and at noon we held our annual business session at Riverside Park pavilion, after which we took a tramp up the old canal for a distance of two miles to a beautifully wooded tract where the Indiana Nature Study Club put on the pageant 'Spring.' This was indeed a most beautiful and appropriate spectacle. Following this we took another tramp of a mile after which more than one hundred of our members sat down to an elaborate chicken dinner which ended the program.

Our Executive Committee is planning an active program for the coming year, and it is our intention to direct our energies very largely to encouraging bird-study in the public schools, believing this the most fertile soil for cultivation, because if we teach children of this generation to love and enjoy the birds, they will accomplish more in their protection than all the game-wardens that can be employed by the state.—FRANK C. EVANS, *Secretary*.

Maryland.—The year 1921-22 ends for the Maryland Audubon Society with a record of great activity and substantial growth. The Society held fourteen meetings at the Maryland Academy of Sciences, of which six were devoted to study-talks directed by Chalmers Brumbaugh and illustrated by mounted specimens of bird-skins. One evening of moving pictures, loaned by the United States Department of Agriculture, was open to the public.

At the other meetings the Society was addressed by: Dr. Paul Bartsch, Dr. T. S. Palmer, and Dr. Harry C. Oberholser, of Washington, D. C.; and Dr. A. A. Allen, of Ithaca, N. Y. Other addresses were made by J. M. Sommers and Frederick C. Lincoln.

Three bird-walks were taken, led by Percy T. Blogg. The president of the Society gave two talks on the need for bird-protection to women's clubs and attended the convention of the National Association of Audubon Societies in New York City, where the Maryland Audubon Society was especially commended for its splendid record for the year 1920-21.

On May 16, the Society held a joint meeting in the Engineering Hall of the Johns Hopkins University, with the Hopkins Naturalists' Club, the Guilford Association, and the Wild Flower Protection Association, at which Dr. A. A. Allen, of Cornell University, was the speaker. His subject was 'Birds and Flowers,' and was illustrated with lantern slides, photographed and colored by himself. This meeting, to which the public was invited, was largely attended and formed a fitting close to a series of lectures by some of the foremost ornithologists of the country.

With the opportunities which our Society offers for study and entertainment, we may confidently expect to continue to enlarge our membership and increase our usefulness to the community.—(Mrs.) BAKER HULL, *President*.

Massachusetts.—We are glad to report a busy and, we believe, an effective year's work. The sustaining membership steadily increases, being now well over the 4,000 mark. We also have enrolled to date 669 life members. To the backing of this large body of devoted and enthusiastic members the Society owes such measure of success as it has attained. The office at 66 Newbury Street, Boston, has come to be recognized as state headquarters for information and assistance in all matters of bird-study and bird-protection. From it steadily go forth literature, traveling lectures, lecturers, definite plans and instructions for bird-work of all kinds, help to birds and bird-lovers.

The Society continues to publish its *Bulletin* which grows in size and the interest and importance of the matter contained. The *Bulletin* goes free monthly to all sustaining and life members. Its annual calendar, beautifully illustrated with colored pictures of birds, through the courtesy of the National Association, reaches an edition of 2,000 this year. Its three Bird-Charts, showing seventy-two birds, life size and in colors, carry the good work of the Society into schools, libraries, and private homes in practically every state in the Union.

The past year has been one of great importance in its Sanctuary work. Through the generosity of more than a thousand of its members it was enabled to purchase an estate of 45 acres, with suitable buildings for a permanent home for its Bird Sanctuary. The location is in the midst of a region filled with bird-life, at Sharon, Mass., 18 miles from Boston and easily reached by railroad or motor. Owners of the surrounding region, to the extent of about 1,000 acres, have placed their lands under the care of the Society for bird-protection purposes. There, under the oversight of the resident superintendent, Harry G. Higbee, all wild life is protected and a perpetual demonstration of the best methods of protection and Sanctuary administration carried on.

That the general public appreciates the value of this work is shown by the great interest taken in it. Between May 1 and September 1, 3,000 people, many from distant regions, registered as visitors at this Sanctuary and carried away with them at least some part of the lessons demonstrated there. In all its work, as in previous years, the Massachusetts Society appreciates the good will and friendly guidance of the National Association of Audubon Societies.—WINTHROP PACKARD, *Secretary-Treasurer*.

Michigan.—The activities of this Society for the five years past have consisted chiefly of those of our devoted president, Mrs. Edith C. Munger, who alone has kept the Society alive against a time of possible rejuvenation. Her Bird Study Outline, prepared as Audubon Chairman of the State Federa-

tion of Woman's Clubs, has been widely used through the state. She has talked to thousands of school children, among them those of the Coldwater Children's Home, whom she found most eager and interested. She has exhibited at fairs, Granges, and other meetings; led a week of Bird Classes at the Y. W. C. A. Camp at Vestaburg, in 1920, and a similar week in 1921 at the Ypsilanti Normal College Summer School. Last May the time was ripe for reorganization, which was effected at Jackson, reëlecting the president whose vision had insured the Society's life. The new work is starting out with a swing, and next fall there will be a full year's progress to report.—(Miss) GENEVA SMITHE, *Secretary-Treasurer*.



HERMANN VON SCHRENK
President Missouri Audubon Society

New Jersey.—Our activities have continued along the several well-fixed lines as in the past. The enrolment of new members, as compared with the inevitable losses from death, resignation, and delinquency, shows better results than those of last year. During the year the Society enrolled 2 life members, 23 sustaining members, 174 members, and 1 associate member. The total receipts for the year, including the previous balance, were \$7,254.17, the total disbursements, \$6,057.67, leaving a balance on hand of \$1,196.50.

The results in legislative effort would have been extremely discouraging if an Audubon Society could afford to be discouraged by one year's setback. The Legislature repealed the Bobolink Protection Law, passed at our behest the year before, and in spite of a very strong public protest. It enacted a cat measure that would have been merely farcical, had the Governor not vetoed

it, and it refused to enact the reasonable and conservative Cat License Bill introduced by this Society.

As has been the case yearly, with few exceptions, since its organization, this Society coöperated with the National Association in the Junior Audubon Class work in the schools, and of these there were organized in New Jersey 222, with a total membership of 9,281. The twelfth annual meeting of the Society was held in Newark, October 10, 1922. The business session met as usual in the Newark Free Public Library, by courtesy of the Newark Museum Association. In addition to the regular address of the president, the reports of secretary and treasurer, and the auditing committee were read and, reports were presented on behalf of member organizations as follows: Ridgewood Audubon Society, Newark Bird Club, Montclair Bird Club, Englewood Bird Club, and the Chiakong Tribe of the Woodcraft League. A number of interesting communications were read, and a brief discussion of squirrels, Blue Jays and Screech Owls *versus* song-birds took place. The previous Board of Trustees was, on motion, unanimously reëlected.

The annual meeting of the Board of Trustees immediately followed that of the Society, and at the same place. Routine business was transacted, Legislative, Membership, and Publicity Committees appointed, and, on motion, the incumbent officers were unanimously reëlected.

At the public session in the evening, in the auditorium of the Newark State Normal School, Dr. Arthur A. Allen presented a particularly interesting, as well as instructive, address on 'Birds in Their Relation to Man,' illustrated by motion pictures, showing what birds do for man, and what man may do for the birds.—BEECHER S. BOWDISH, *Secretary*.

Ohio.—We had a new plan of program during the past year. It might almost be said that our Society hibernated for the winter, coming back to renewed life in February, from which time the work of spreading propaganda for our feathered friends was attacked with 'vim, vigor, and victory.' The meetings were largely attended and intensely enjoyed by all, for Mrs. Hansen's delightfully informing talk in November, Prof. Harris M. Benedict's more scientific address in February, and Mrs. Lewis Hopkins' scholarly paper read before the Society in March, made up a program that may well cause any Society to feel gratified. In April, Guy C. Caldwell, of Massachusetts, gave a varied program, illustrated with beautiful colored slides showing trees, flowers, and birds, and he imitated the songs of many of the latter. The Society spent much of its surplus funds in order to send Mr. Caldwell before the children of the schools. In all, he addressed about ten thousand pupils, who received him with great enthusiasm.

Some of those who always deserve 'honorable mention' for work done in the past year in behalf of bird-life, are our president, William C. Kramer, Miss Dora Hargitt, and Miss Kate Sweeney. The Society shows a slow but steady

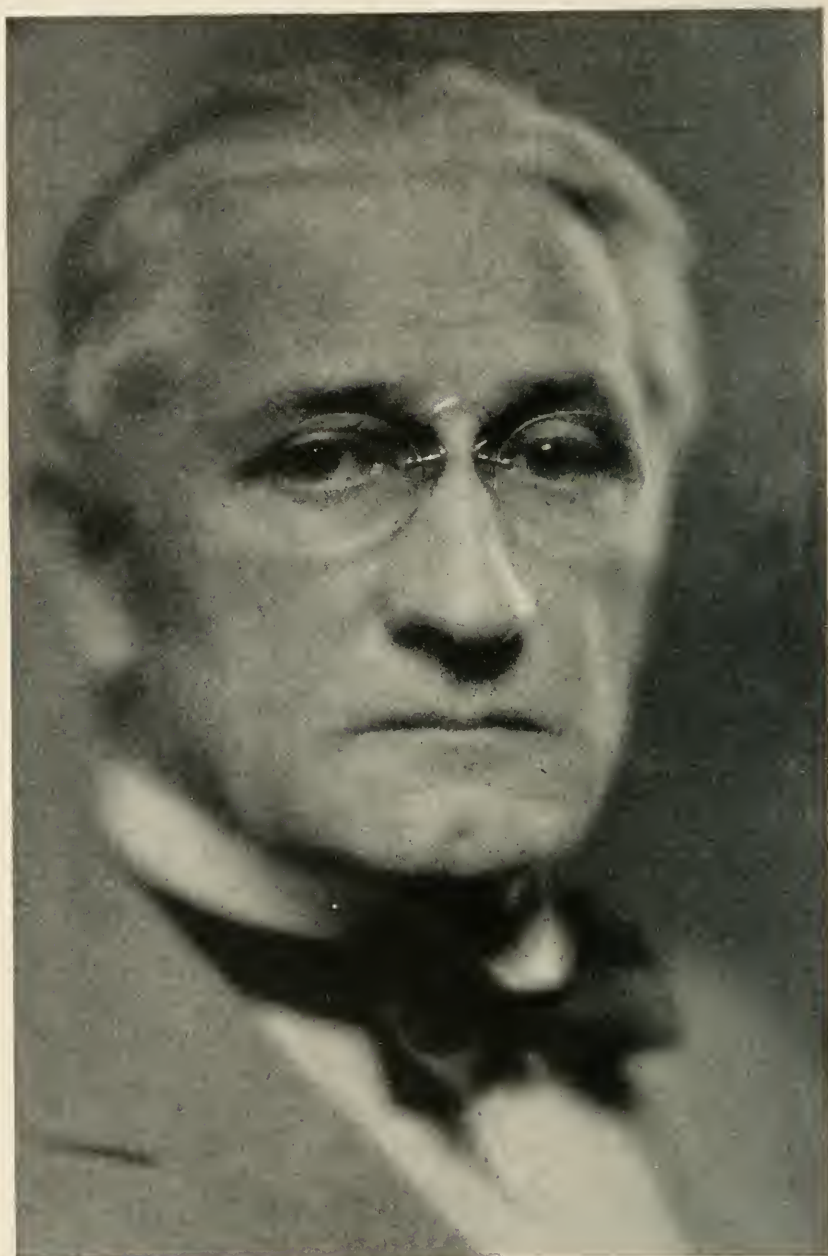
growth in the adult membership, and the sentiment for birds is very evident. Instances are frequently reported to show the changed attitude of boy toward bird, due to the steady and persistent effort on the part of various workers. A group of Clifton boys discovered the nest of a Meadowlark in a vacant lot where they intended to have a baseball game and immediately adjourned to the street, lest they should frighten the mother bird or hurt the eggs. There are many such instances recorded to show that the Ohio Society has not been idle. The sentiment for nature-study is growing constantly and the work of this Society in the past twenty-one years is one that has been well rewarded. Birds are plentiful and some, like the Mockingbird, which had disappeared when they were not protected, are to be found in constantly increasing numbers in Ohio.

In my experience as a teacher I have found that, without exception, all boys in the school seem to be enthusiastic admirers of birds. This can only be the result of the seed planted early in their lives by someone who has learned the value of the birds. We hope to make the next year the banner year of the Society's history, for it will be the twenty-fifth anniversary of its organization, and some of the charter members are still with us, to marvel at its progress.—
KATHERINE RATTERMAN, *Secretary*.

Oregon.—Our state Society has made fair progress during the year past. The Junior work, which we regard as the most important part of our activities, was ably and enthusiastically covered by Mrs. Gale. She knows how to interest parents, teachers, and children; it is to this skill in the presentation of the subject that we owe much of the favorable public opinion enjoyed by this Society. The Saturday evening talks upon birds and other outdoor subjects, illustrated with slides and moving pictures, under the management of our vice-president, W. A. Eliot, continue to please large audiences. These talks are to be continued this year with a greater variety of subjects and more varied speakers.

The lantern-slides of northwestern birds, drawn and colored by Bruce Horsfall, completed last year with text for the accompanying lecture by Mr. Eliot, have called forth much favorable comment. We have two sets of these beautiful slides for use in the field. Our fourth annual Art Exhibition was held last spring, in coöperation with the Department of Botany of the University of Oregon, and consisted of photographs and paintings of wild birds and their nests, with water-color studies of the wild flowers of the state, supplemented by a most pleasing display of natural wild flowers blooming at that time. Thousands of our people, both school children and grown-ups, received pleasure and instruction from this exhibit.

As we move along, the young people fall into line with the enthusiasm of youth to carry forward what others have laid down; so may it ever be.—
EMMA J. WELTY, *Corresponding Secretary*.



CASPAR WHITNEY
President Audubon Society of Irvington-on-Hudson, New York

West Virginia Audubon Society.—At the solicitation of our Society, Hon. A. B. Brooks, State Game Protector, delivered an illustrated wild-life lecture in Parkersburg early in March, which was very entertaining, as well as instructive. He showed several slides of song-birds and their nests, taken in their native environments. The lecture was well attended and aroused much interest in nature-study among adults as well as the pupils in the schools.

During the past winter, to create a friendly rivalry among the pupils of the manual-training department in the junior high school, our Society offered first and second prizes for the best bird-houses. Utility was to be the first consideration by the judges, and workmanship next. The prizes were awarded in May, a dozen or more boys competing, with a very creditable exhibit.—WALTER DONAGH, *Secretary*.

Audubon Club of Norristown (Pa.).—Our Club has held its regular quarterly meetings during the year, and each time there has been a large and enthusiastic audience. Our lecturers have included A. S. Martin, Dr. Arthur A. Allen, who spoke on 'Birds in their Relation to Man,' James P. Chapin, on 'Birds in the Belgian Congo,' and C. J. Pennock on 'Birds of the Gulf Coast of Florida.' These lectures have been highly instructive and entertaining and have been followed by most interesting motion pictures, dealing with bird-, plant-, and insect-life.

The meetings of the Society, held as usual in the Regar Museum, are a real inspiration to all lovers of our feathered friends and do much to encourage bird-protection in the community. Our members have done much individually along the line of feeding birds in winter and are also greatly interested in a bird-chart, on which is recorded the names of birds seen in a locality on certain dates and other interesting items. We have increased our membership and are looking forward to a very successful year.—ISABELLE WALKER, *Secretary-Treasurer*.

Audubon Society of Irvington-on-Hudson (N. Y.).—This Society was organized in 1920. Caspar Whitney is the president. There are now 140 members and an awakened interest in the whole community. In the past year, twelve feeding-stations and twelve baths have been maintained, besides many not reported to the Society. Fifty suet-holders have been placed about the village and about the same number of bird-houses have been erected. The Society gave a large bird-bath to the village, which was placed on the lawn of the Presbyterian Church.

There are bird-classes in all the schools and the children have been on numerous bird-walks. The Society has offered prizes to the school children for the best bird-pictures taken between now and December 1. Mr. Job and Louis A. Fuertes have given very interesting lectures which have added greatly to the number of people who have become interested. The Society is very

young and the village small, but we hope to extend our activities in many ways.—MARY C. NISBIT, *Secretary*.

Audubon Society of Western Pennsylvania.—Our past year has been a very satisfactory and successful one. The seventh annual banquet was held at the Fort Pitt Hotel, Pittsburgh, March 25, 1922, with an attendance of 135 members. Three of our own members were the speakers of the evening. John D. Meyer made an eloquent plea for more altruism on the part of bird- and nature-lovers; Prof. George R. Green, of State College, Pa., gave an address on the relation of trees to birds; and T. Walter Weiseman gave a remarkable and unique exhibition of his moving pictures. A memorial to the State Game Commissioner was adopted, urging protection for the Raven, which is almost extinct in Pennsylvania.

We scheduled eighteen field-trips during the year, most of which were very well attended. Our most successful outing was held at Bradford Woods, May 13, on which occasion 63 species of birds were seen. A Christmas bird census was taken for the first time in the history of the Society. Ten different parties participated and 30 species and 1,200 individuals were noted. A synopsis of this census was published in our local papers. We plan to conduct a similar census in 1922 on a much more extensive scale. Two of our outings were scheduled for the Junior Audubon Societies. There are fifty of these societies in Pittsburgh, with a membership of 2,000 children. On April 11, our statistical secretary, George M. Sutton, gave a wireless talk on 'The Bird Citizens of Pittsburgh' from station KDKA of the Westinghouse Electric & Mfg. Co. This talk was broadcasted to thousands and proved to be a valuable publicity feature.

We regret to chronicle the loss of Thomas L. McConnell, a most enthusiastic bird-lover and a very keen observer. Our 'Country Rambler' paid an eloquent tribute to the memory of 'Whip-poor-will Tom,' as some of his intimate friends called him, in the *Pittsburgh Sun* on October 18, under the title of 'The Trail of Sorrow.' A number of our members paid visits to our tract in the State Forest Reservation, near Ligonier, at various times during the year and observed the birds of the Allegheny Mountain Region.—JESSE L. JONES, *Executive Secretary*.

Bird Club of Long Island.—One of the most important things which happened to the Bird Club the past year was the meeting of the Club which, through the courtesy of Mrs. Willard Straight, was held at her house in Westbury, in October. Thirty villages were represented and so much interest was shown by the unexpectedly large audience that the Executive Committee is planning for two more such meetings this season.

Mr. Pearson, president of the National Association of Audubon Societies, gave a most interesting talk; Mrs. Sage, our field agent, gave a brief description

of her method of work in the public schools and showed the 'Suet bags' which have proved so popular with the birds; and not the least interesting part of the meeting was the open discussion which took place. Mr. Pearson told of the aims and purposes of the Audubon Society and of the work it is doing in helping enforce existing laws and in getting legislation for the protection of rapidly disappearing birds. Few of us realize how much our National Association has accomplished and still has to do. The fight for protection has literally had to be carried to the floors of the senates and legislatures of the different states. Even today, a constant watch must be kept on state and National legislatures to prevent the passage of such a bill as was recently brought up at Albany which will give farmers permission to shoot Robins when, in their opinion, they become a menace to crops. This means, of course, that they would be indiscriminately destroyed.

Those of us who were appalled at the steady increase in the demand for cigarettes which Mr. Bok speaks of in his autobiography, and which he seems to think was due to the campaign carried on in his magazines to discourage the wearing of these feathers, could well believe Mr. Pearson's accounts of the wholesale attempts to break the law prohibiting their importation and sale. However, it is encouraging to know that the legislation that has been enforced and the organization of many bird clubs has made a very perceptible difference in the number and varieties of birds which we can all appreciate.

Perhaps not many of us realize how many varieties there are on Long Island. William Beebe, while staying with a member of the Bird Club in August, 1921, on Dosoris Island, counted fifty different kinds of birds in two days.

The field agent has given 113 talks and lectures, speaking to public schools, clubs, and other organizations as will appear in her report. There has been an unusual amount of sickness in the schools, and Mrs. Sage has been ill herself, which has made the number of talks given this year less than last year.

We have printed and distributed large cards which carry excerpts from the Penal Code regarding the sale and carrying of weapons, and also directions for winter feeding of birds. These cards have been greatly sought after by the school principals, game-wardens, and have been reprinted in many of the local newspapers, and hung in post offices, schools and railways stations. Mrs. Sage and the little Ford coupe with 'The Bird Club of Long Island' on the panel of the doors, and known as 'Birdie,' is well known from one end of the Island to the other. Requests for her to speak before other organizations and to small groups of members have been gladly complied with whenever possible.

It will be noted that we are still only fifty-five per cent self-supporting, and we hope that a sufficient number of new members may be secured during the coming year to give us a large enough income to make it unnecessary for us to accept funds from the National Association of Audubon Societies which they might devote to carrying forward the work in unorganized territories.—ETHEL C. DERBY, *Secretary*.

Bird Conservation Club of Bangor (Maine).—The first official act of our Club the past year was to vote \$100 to make our Club a life member of the National Association of Audubon Societies. We have wanted to do this for several years, but the regular work kept our treasury low. The Herbert K. Job lecture, which was a great success, helped us to reach the goal. The monthly meetings have been profitable and interesting. Through the fall, winter, and spring, one of our members has contributed monthly a 'Bird Lover's Column' to one of the daily papers. This has aroused public interest in our work. In April we gave a motion picture entertainment of bird films at the opera house.

The Club has been much interested in the bird-banding movement, through the active work of one of its members. This year, with a superintendent of public schools in sympathy with our aims, we have done more work in the schools of Bangor than ever before. In coöperation with the manual training department and the public library, we offered prizes for the six best constructed nesting-boxes. The exhibition was a success and many nesting-boxes were sold to interested buyers. The Club has given Audubon Charts to six of the suburban schools. We have made great efforts to form Junior Audubon Clubs in the schools, and there are now several flourishing Clubs started. In some schools, where the teachers felt that they could not form Clubs, the interest in birds has been stimulated, and we look for more Clubs next year. Our field meetings are a great feature and highly enjoyable.

In January, Mrs. Florence Buzzell, for six years president of our Club, died after a lingering illness. Mrs. Buzzell was an ardent lover of nature. Everything in God's great out-of-doors appealed to her, but the birds were especially dear, and it was in her heart that the 'Bird Conservation Club' found birth. The birds will never have a more appreciative, loyal friend than she. It is our ambition to erect a beautiful bird fountain in Summit Park, a place much frequented by birds, in memory of Florence Bragg Buzzell, our Club's founder and first president. We are now bending all our energies towards raising the necessary funds.—ALICE B. BROWN, *Secretary*.

Bird-Lovers' Club of Brooklyn (N. Y.).—The past year meetings were held on the second Tuesday evening of each month from October to June, inclusive, at the Children's Museum. Talks by members of the Club were given on 'Migration,' illustrated with charts; 'Winter Birds' and 'Spring Birds' seen at Prospect Park from 1914-21, each accompanied by color prints of the birds discussed; 'Warblers,' with which water-color sketches were also shown of each species; 'Treatment of Bird-Skins for Study Specimens,' with several mounted specimens for illustration. At other meetings 'Round Robins' have been the special feature of the evening, or a visit to the exhibition rooms of the Museum to study the collection of birds which are classified in cases according to seasons in Prospect Park and the 'Birds We Read About.' At

each meeting it is the custom for members who have been afield during the preceding month to give three-minute reports of observations.

The Club has joined with other parties in several field-trips and has expressed its sympathy with the measure to conserve the Quail in this country; also it has written to United States Senators of New York and Representatives of Brooklyn urging their support of Mr. Barbour's amended bill to establish the Roosevelt-Sequoia National Park. During the past two years the Club has kept posters at some of the entrances of Prospect Park, and this year fresh ones, painted in oils, have been placed in the frames provided for that purpose.—E. TIPLIN, *Secretary*.

Brookline (Mass.) Bird Club.—Our Club has enjoyed a most successful year. As in other years, our principal activity has been our walks. These are held on Saturdays and holidays, and during the spring migraton season, early in the morning, each day except Thursdays, and on late Wednesday afternoons. These have been so well attended that in nearly every case, during the spring and early fall months, two or more trips have been conducted on the same day. Many of our members have become greatly interested in bird-banding and have done some excellent work.

Our meetings have been well attended. The speakers have been as follows: L. T. Little, 'The Birds of Nova Scotia;' Horace Taylor, 'Fuertes' Bird Drawings;' Dr. John B. Brainerd, 'A Bird Trip in the Yosemite;' Rev. Manley B. Townsend, 'Following Nature's Trail;' L. R. Talbot, 'Bird-Banding Experiences in Thomasville, Georgia.' In February we held an exhibition of bird-paintings by Ralph A. Quinby, of Dorchester.—(Mrs.) MARY MOORE KAN, *Secretary*.

Buck Hill (Pa.) Nature Club.—Although nature in its entirety lies within the scope of the Buck Hill Nature Club, birds are kept always in the foreground. Buck Hill Falls, Pa., the seat of the Club, is a bird sanctuary, within whose limits nest nearly fourscore species of birds. Throughout the Club season, which extended over the months of July and August, bird-walks were taken on the average of four times weekly, two of them at daybreak. They formed a part of the study course that, for adults, consisted of two classes daily, five days a week. The Junior Classes met once every day except Sunday. Attendance at the classes this summer totaled 1,188, a new high record.

At the Club exhibit at the Barrett Township Fair, which is held annually in August at Buck Hill Falls, emphasis was laid upon the value of birds. Literature, generously supplied by the Audubon Society, was distributed among the hundreds of visitors to our booth. We endeavored also to combat the popular enmity toward 'good' snakes and to further the campaign for wild-flower preservation. (The uprooting or picking of plants and flowers is prohibited at Buck Hill Falls.)



A FRIENDLY VIREO AT BUCK HILL FALLS, PA.
Photographed by Ernest Corts



A WOOD THRUSH AND HER YOUNG
Photographed by Ernest Corts

The Club Director, Edward H. Parry, of Wyncote, Pa., assumed personal charge of the adult activities, while the Junior Classes were in the hands of his assistants, Miss Miriam Louise Stirl, of Reading, Pa., and Miss Eleanor Wharton, of Philadelphia. To supplement the classes, both afield and within doors, and the campfire suppers and all-day botanizing and 'birding' trips, the Club presented a free lecture course at the Inn, bringing to Buck Hill Falls the following named speakers: Frank Morton Jones, Wilmington, Del.; Dr. Mayville W. Twitchell, Assistant State Geologist of New Jersey; Prof. C. L. Harrington, New York City; Prof. George B. Kaiser, University of Pennsylvania; Henry J. Fry, Columbia University; and Dr. E. T. Wheery, Department of Agriculture, Washington, D. C.—(Mrs.) MARGARET S. STRATTAN, *Secretary*.

Burroughs-Audubon Nature Club of Rochester (N. Y.).—The past year has been for our Club a memorable one. Perhaps our greatest experience in creating interest was through the fitting up of a Nature Room in the Municipal Museum which is open to the public and under the direct supervision of the Club. In it will be cases for mounted birds, four containing specimens of all the native species of Rochester and vicinity, including the migrants. With a start of 94 birds, more are to be added as dead birds are found, only one of a kind being used. There will also be a botanical collection including native wild flowers and ferns, cases of butterflies, moths, and insects, shells, and geological specimens. In a room adjoining the Nature Room will be the library. It will contain books on birds and other subjects. Periodicals and magazines on the above subjects, such as BIRD-LORE and others that may be suggested from time to time, will also be there.

At our annual meeting our president, William B. Hoot, gave a very interesting description of his summer spent at Enos Mill's camp at Long's Peak, Colo., illustrating his talk with colored slides. At another meeting, in March, W. L. G. Edson, one of our valued members, spoke on 'The Winter Birds', illustrated with slides. Meetings were held regularly through the spring, summer and fall months. A growing interest in the study of shore-birds is noticeable. We have held several meetings where we could study the birds in their favorite resorts around the marshy ponds and bays skirting the lake shore. The Club stands ready to unite its efforts with the Fish and Game Protective Association of Monroe County to have better administration of the local bird and animal laws to the end that such life may be protected. Sausage roasts at the end of some of our walks in the fall added a little social life to the Club. (Miss) HARRIET GANUNG, *Secretary*.

Burroughs Nature Study Club of Johnstown (N. Y.).—Our only accomplishment of note this year is the erection of a handsome cement bird-bath in the Courthouse Park, within a few feet of the old courthouse which occupied

so prominent a part in the recent pageantry commemorative of the County's one hundred and fiftieth anniversary. (Perhaps even the busy New Yorkers' eyes may have caught a glimpse, in the daily papers, of this renaissance, in memory of the days when Indians instead of strikers threatened the public welfare!) As to the officers of our Club, the personnel remains the same as when published in BIRD-LORE several months ago. Our annual election of officers does not take place until next month.—MARGARET E. RAYMOND, *Secretary*.

Chautauqua (N. Y.) Bird and Tree Club.—Our Club began its work in June with the added inspiration gained through the presence of the sixteenth biennial convention of the Federation of Women's Clubs at Chautauqua. Mrs. Robert A. Miller, president of the Club, was the chairman of the Convention Hospitality Committee, and twenty-four members of the Club worked with her on this and other committees. The first reception, attended by about five hundred people, was held in Miller Park, adjoining which is a charming woodland garden. Mrs. Thomas A. Edison, the owner, recently transformed this from a barren plot into a paradise of verdure with bird-boxes, fountain, and large hospitable bird-shelter. During the year we gave \$1,000 toward the improvement of an unsightly area around the traction station. Two friends gave a marble bird-bath and Italian bench for this park.

On Saturday afternoons, informal meetings were held. One of these took the form of a trip to five beautiful gardens—those of Mrs. Edison, Mrs. Munger, Miss Merrill, Dr. Jewett, and Mrs. Praisted. Mrs. Thomas Edison spoke at the first meeting. In succeeding meetings Mr. Van Cleve gave a talk on 'Wild Flowers.' Mr. Retan, the forester, spoke on 'Chautauqua Trees' and on 'Birds.' Miss Anna Maxwell Jones gave a talk on 'Gardens and Flowers,' and Mrs. Goodrich Smith identified numerous flowers and birds. Mrs. Tibbetts gave a comprehensive exposition of bird protection with charts and pictures, and presented information showing the menace of cats to bird-life. A resolution was adopted providing for action against tramp cats. Dr. G. Clyde Fisher lectured at the amphitheatre on 'John Burroughs,' giving the audience a delightful home acquaintance with the great naturalist.

The season closed with the annual club supper attended by two hundred people. Mr. Arthur Bestor, president of Chautauqua Institution, presided and gave a talk in which he thanked the Club for its work. Mr. Lorado Taft, the sculptor, was the guest of honor.—HELEN B. NORTON, *Corresponding Secretary*.

Community Bird Club, Wells River, Vt., and Woodsville, N. H.—The Club maintains a membership of twenty-eight and it now includes in its study not only birds but other nature-study. We have held during the year 1921-22, ten meetings, taking a vacation in July and August. Our programs have been

varied and interesting. One of our members specialized in college upon astronomy and is interested in forestry; another has reported a migration list for a number of years to the Biological Survey and is engaged in bird-banding; others are interested in plant-life, so that we have many interesting papers.

Each year we plan for one meeting for the public with a speaker from the outside. We secured the secretary of the New Hampshire Audubon Society this last year, who brought with him some colored slides and gave an interesting and instructive talk. On Arbor Day, one member, who is especially interested in birds, went into the grades in the school and gave each one a talk on 'The Utility of the Birds.' Several bird-walks have been taken with school children. A number of feeding-stations are maintained. Considerable interest is aroused in the introduction of the English Pheasant into this section. Another member, president of the Junior Audubon Society, manufactures nesting-boxes.—(Mrs.) M. G. BATCHELDER, *Secretary*.

Cumberland County (Maine) Audubon Society.—Our annual meeting was held in April. The treasurer's report showed the finances of the organization to be satisfactory. More than one hundred new members have joined the Society the past season. The constitution and by-laws have been revised, also the Society has been incorporated and has purchased Western Egg Rock, a small island in Muscongus Bay, as a breeding-place for the Laughing Gulls. We have placed a warden in charge. The activities of the Society may be judged by the following list of committees: Membership, Program, Bird-Box, Cat-License, Bird-Day Program, and Advisory Committee for Attracting Birds to our Home Gardens.

The Junior Audubon Society has been organized, with many enthusiastic members and able leaders. The chairman, Mrs. Caroline B. Rolfe of the Junior Society, writes of her work: "After our good Governor, Percival P. Baxter, set aside April 14, 1922, to be observed as Bird Day all over the state of Maine, the associate members of the Cumberland County Audubon Society, who are teachers in the city of Portland, were appointed as a committee to plan a program for that day in the schools. They invited several members of the Society to speak to the children in different schools, and hundreds of children were invited to join with the Society in its work for the wild birds. The program was splendidly arranged by the Committee and several large Junior Clubs were formed. The Jackson School deserves special mention as its teachers have formed three large Clubs. As this is the very beginning of the Junior work in Portland, the Committee feels encouraged and hopes to send names of more Junior Clubs in the near future."

The chairman (and originator of the idea), Mrs. Edwin Gehring, writes of the work of the Advisory Committee on 'Attracting Birds to our Home Gardens' as follows: "With the realization that there are hundreds of persons in our city—as well as in the whole country—to whom the desire has recently come

to know our wild birds, one of the members of our organization conceived the idea of forming a committee whose privilege and duty it should be to go to homes by invitation and there advise how to attract the birds to the surroundings." The Society eagerly adopted the idea. A Committee of four called the 'Advisory Committee on Attracting Birds to the Home Gardens' was formed and as soon as it was clear in their minds what subjects to treat at any such interviews, a notice was inserted in one of the daily papers. In one hour after the paper's publication a call came from a member of a Grange, representing about fifty homes, asking if our Committee would address a Grange meeting and give our suggestions and advice to the many who would be there. A week later the Committee was called to meet with a group of over one hundred persons, then with one of the Parent-Teachers' Association. Individual calls from homes and questions upon the subject come in over the telephone.

There have been six program meetings and five directors meetings. An address, in November, was given by Arthur H. Norton on 'The Herring Gull and What Protection Will do for Birds,' illustrated by fine stuffed specimens. In December, Dr. Alfred O. Gross, of Bowdoin College, spoke on the 'Junior Audubon Societies of Brunswick.'

In January, T. Gilbert Pearson, president of the National Association of Audubon Societies, delivered a fine illustrated lecture on the 'Necessity of Conserving Bird Life.' The April meeting was addressed by Capt. Herbert G. Spinney, of Bath, Maine, who spoke on 'Bird Life as Seen on the Island of Seguin' where he was keeper of the lighthouse for some years.—(Mrs.) GEORGE F. BLACK, *Secretary-Clerk*.

Dana (N. Y.) Natural History Society.—The annual Bird Day lecture established by our Society for the school children of Albany was held in Chancellor's Hall on Friday, April 7. A large and enthusiastic audience was gathered there. Dr. Clarke, director of the State Museum, introduced the speaker, Prof. Arthur A. Allen, of Cornell University, who gave a most informing and delightful lecture on 'What the Birds Are Doing for Man.' He was listened to with closest attention, and at the conclusion we all felt greatly indebted to these tiny citizens of the air for eating the slugs, insects, and other destructive vermin. A feature of the lecture was the exhibit of bird-houses made by the school children, and a very wonderful one that had taken the prize.—(Mrs.) CHARLES SELKIRKE, *President*.

Doylestown (Pa.) Nature Club.—Our Club has grown from 7 members in 1907 to 250 adults and 50 juniors in 1922. The Bird Sanctuary at Fort-Hill, Doylestown, the home of Dr. H. C. Mercer, was dedicated in 1917, and is under the care of the Nature Club of Doylestown. Warning posters are placed at the five entrances, consequently the birds have found a 'haven of rest' and protection, and many species build their nests and raise their young in unex-

pected places. Generations of the same family of birds and animals have felt the protection, and are increasing in number, due to their security. It is impossible to tell the exact number of species which enjoy the hospitality of Fort-Hill. A safe estimate of those noted during the year would be seventy-five species.

Dr. Mercer has made the following interesting observations: A pair of Barn Swallows has built a nest under the cloister of the castle in which Dr. Mercer lives, and raised a brood for three successive years in the same nest, which they have repaired each year. A pair of Sparrow Hawks built their house in the chimney and reared a family of four for three successive years. A Cooper's Hawk winters at the Sanctuary and has a propensity for *white* Pigeons. A peculiar feature of this particular bird is he will only kill Pigeons in foggy weather, then methodically put the feathers in heaps. Nighthawks, which are rather rare in this locality, visit the Sanctuary. The Quails and Pheasants are becoming quite numerous and tame.

Killdeers lay their eggs on a much-traveled cinder path, used daily by vehicles, but for two years they have escaped harm.

The Junior members are being taught the value of birds, trees, and flowers, and during severe weather they provide feed for the bird-boxes and place suet in the holders which are fastened to the trees. A wild-flower garden has started at Fort-Hill, and in time the Nature Club hopes to have all the flowers and trees native to Bucks County growing at the Sanctuary.—(Mrs.) I. M. JAMES, *President*.



A WOODCOCK FRIEND OF THE DOYLESTOWN (PA.) NATURE CLUB

Englewood (N. J.) Bird Club.—This Club, organized in 1915, enters upon the seventh year of its work with 290 active members. Regular monthly meetings of the Club are held from October until April, with splendid attendance at each meeting. During May, six early morning bird-walks were taken, under the leadership of Walden DeWitt Miller of the Department of Ornithology of the American Museum of Natural History. The Club has active Protection, Field-Study, Publicity and Program Committees. The Protection Committee erected a shelter and installed a feeding-tray at one of the country clubs and, working with the Publicity Committee, aroused much general interest and activity by placing a complete and attractive exhibition of feeding-devices, baths, bird-houses, and books on bird-lore in a prominent store-window during a week in the late fall. The Publicity Committee has done able work through the local paper, the object being to make all citizens 'ex officio' members of the Bird Club. The program of the season was arranged to further hold the attention of the general public who were invited to the popular lectures.

The chief attractions were: A lecture by Dr. Frank M. Chapman on 'Fall Migrations,' a matinee lecture by Professor Allen, of Cornell University, on 'Bird Protection,' with slides and motion pictures, for the school children, which was repeated in the evening for the Club and its friends; Dan Fellows Platt on 'Our National Parks' with beautiful pictures; Charles Gorst, of Boston, in his very popular and instructive series of bird-call imitations, with paintings of the birds.

Members were given a surprise test at another meeting, being asked to identify numerous skins and the Audubon Chart illustrations. This resulted in some immediate and intensive bird-study. The membership is increasing. The treasurer's report shows net assets of \$165 on September 30, 1922.—AMY C. PARKHURST, *Secretary*.

Forest Hills Gardens (N. Y.) Audubon Society.—Our Audubon Society is going quietly and steadily on as it has ever since the organization on April 9, 1914. The aims of the Society have been to attract birds to the village and then to keep them here and to interest the residents in these feathered friends. The birds are needed to save the priceless trees, shrubs, and flowers from the pests that would destroy them, and their songs are needed to lift the men and women, boys and girls, from things material. Bird-houses have been placed in hospitable trees, in private yards and in the parks, and the people have been encouraged to keep the houses clean and ready for the occupants. Generous and friendly winter-feeding of many pounds of grain has saved the life of many a bird when the snow has been on the ground.

All through the years, a continuous program of education has been carried on by the organization to interest the adults in the birds and to train the children in the intelligent care of these valuable song-birds. On November 5,

1922, the Society presented T. Gilbert Pearson, President of the National Association of Audubon Societies, to the people of the gardens when he spoke on the varieties and habits of birds, particularly in the nesting season.

Especially important is the work which the organization is doing with children. Once or twice a year, as a gift of the Bird Club of Long Island, Mrs. Mary S. Sage speaks to all the children in the public schools of the village. On December 13 she gave four illustrated talks to the different groups of public school children in Public School 3, driving home the facts that "every bird is a friend and every bird has a work to do." The school principal and the teachers coöperate in this work of reaching the children at the most impressionable ages when the impressions are the most lasting.

In the parade on last Independence Day, the group representing the Audubon Society received the first prize for the most original group. As a regular medium of publicity, the Audubon Society uses the Forest Hills Gardens Bulletin. Also the artistic posters on the lamp-posts have recorded pictures and bird-notes. It is a regrettable fact that the Society is put to considerable expense and trouble in replacing the glass in the posters. How is the glass broken? It is the hope of the Society that such careless breaking of the glass will cease. In connection with the Bird Club of Long Island, the organization is trying to influence the officers of all country clubs and golf clubs of Long Island to make their grounds bird reservations.—(Miss) MARY E. KNEVELS, *Secretary*.

Genesee (N. Y.) Wesleyan Audubon Society.—The Society was founded in March, 1917, with a membership of 31. Ever since then the membership and activity have been increasing. Our meetings are held the first Thursday night of each month during the school year. The first part of the meeting is devoted to business after which a program is given. The programs are provided by members of the Society giving talks on different birds and their habits. For the program the bird-slides, furnished by the State Education Department, are used. Field-trips are taken during the fall, winter, and spring and reports of these are made at the meetings. A record is kept of the arrival and departure of migratory birds and the member's name who first saw the bird on arrival and who last saw it before departure.

During the past year one of our local residents, who owns a large swamp near the village, posted it and announced the swamp as a bird-refuge. Nobody will be given permission to hunt near the swamp except with field-glasses and camera. The Club sent a letter to the owner expressing their appreciation for this action which had come about as a result of the influence of our Society.

A contest was held the latter part of the school year between two sides of the Club. Counts were given for seeing the first bird, finding nests containing eggs or young, pictures of nests and birds, destruction of bird enemies, attendance at meetings, field-trips, and the reading of books and leaflets. The

losing side furnished a picnic dinner to the Club. Many birds were attracted near one of the class-room windows by food placed for them nearby.—F. KEITH PIERCE, *President*.

Hamilton (Canada) Bird Protection Society, Inc.—The Society has again enjoyed a highly successful year. Its six regular meetings were largely attended, and addresses on bird-study and bird-protection were thoroughly appreciated. Among the speakers of the season were T. Gilbert Pearson, W. E. Saunders, and other well-known authorities on the subjects in which our members are interested. In field-work the Society conducted its usual weekly bird-walks during the spring migration season, compiled spring and fall migration lists, and, for the first time, was able to make a Christmas bird-census (previously reported in BIRD-LORE) which will no doubt be an annual event in future. Work in the schools of Hamilton and the neighboring counties was carried out as usual, and a large number of Junior Bird Clubs were formed, to obtain the educational leaflets of the National Association of Audubon Societies.

Mr. Pearson kindly spoke at a children's meeting as well as at the regular meeting of the Society, and the juvenile audience, which taxed the capacity of the hall, were fired with fresh enthusiasm for the cause of bird-protection. Through the efforts of this Society, all letters mailed in Hamilton during the month of May bore the postmark shown in the illustration. We hope other bird-protective organizations will join us in this method of propaganda during the breeding season next spring. At present, we are preparing a set of instructive posters which we hope will influence some who are unaffected by warning or threatening notices. Each will deal briefly with the economic value of one of our common birds. They are being printed by a member, H. C. Merrilees.



'PROTECT THE BIRDS AND HELP THE CROPS'
Showing Cancellation Stamp of Hamilton, Ontario Post Office

Our Society is affiliated with the Ottawa Field-Naturalists' Club (the central organization for Canada,) and with the National Association of Audubon Societies. R. Owen Merriman and Miss Ruby R. Mills were reëlected president and secretary-treasurer, respectively, and Dr. H. G. Arnott (who acted for the president during the past season) and C. D. Cook were named first and second vice-presidents. With a splendid program arranged for its coming meetings, and plans laid for the continuation and extension of its work, the Society intends to make the season of 1922-23 another step in the ladder of its success.—R. OWEN MERRIMAN, *President*.

Hartford (Conn.) Bird Study Club.—The past year has been a happy and prosperous one for our Club. Eighteen indoor meetings were held. These were well attended, and the papers and discussions on a great variety of subjects were thoroughly enjoyed. There were five illustrated lectures, open to the public, given by the following men: Charles A. Gorst, Beecher Bowdish. Herbert K. Job, William Smith, and Prof. A. A. Allen, of Cornell University. There were nineteen field-trips on which the average attendance was 21. These trips furnished wonderful opportunities for the study of plant and animal life, and the greatest care was always taken to protect the flowers, the birds, and the animals.

In 'Warbler time' the Club has a census day on which the territory around Hartford is covered by different members, who report on the total number of birds seen. This year, on May 14 and 15, 125 varieties were observed. Saturday morning illustrated lectures were held for the children, who had the privilege of listening to such men as Donald McMillan and Ernest Thompson Seton. These lectures have inspired the children with a love for and interest in birds and animals, which are of far-reaching importance.

We sent a letter of resolution requesting the Board of Water Commissioners to reconsider their intention of removing the guards from Reservoir Park, thinking that lack of guards would lead to damage to property and injury to plant and animal life. During the year, 41 new members were voted into the Club, which seems not only in numbers, but in the influence which it has upon the community, to be steadily increasing.—RUTH L. SPAULDING, *Secretary*.

Hesston (Kans.) Audubon Society.—The second year of our Audubon Society closed with September, 1922. It has really been the first year of any special activity. Two public lectures were given, one by Mr. Hutchins, in November, and the other by S. M. Kanagy, in February. The latter was illustrated with lantern slides. From February to May monthly meetings were held for general discussions and for the comparing of field-notes and planning work of the Society.

Thirteen new members have been enrolled during the year. A total of seventy-one species of birds was recorded on a chart which we keep for this

purpose. To Ruth Bender went the honor of recording the greatest number of new bird arrivals. Members record their field-notes on blanks supplied by the Society. Two members took part in the annual BIRD-LORE Christmas census.

Our Society is a member of the National Association of Audubon Societies. This brings us the valuable magazine BIRD-LORE and other literature which the Association puts out. The income of the Society for the year was \$39.36; expenses, \$34.55.—EDWARD YODKER, *President*.

Iowa City (Iowa) Audubon Society.—Circumstances over which we have had no control have materially limited the activities of our Society during the past year, but I am happy to say that our organization is now taking on new life, and we are anticipating in the immediate succeeding months a period that promises a broader field of operation and many a new and wide-awake adherent to our cause.

Particularly are we anxious to line up the public schools of our city in the matter of Junior Audubon work, feeling, as we do, that this would accomplish great and far-reaching good, and we therefore trust that a year hence we shall be able to report success in this direction.

Recently an address was given by Prof. C. C. Nutting, Iowa State University, who had just returned from a research expedition to the Fiji Isles and New Zealand. A noteworthy incident of the expedition, was the bringing back by Professor Nutting of four living specimens of the *Sphenodon*, the sole living species of an order, otherwise known by fossil remains only. The creature, about a foot in length, and similar in general outlines to a lizard, is found only in New Zealand, on a small island, near Wellington, and possibly one other. Because of its scarcity, the New Zealand government has forbidden its being taken from its native habitat, but the regulation was suspended in his case and the four creatures brought to the Iowa State University. These are the only living specimens within the United States today.—GEORGE BENNETT, *Corresponding Secretary*.

Los Angeles (Calif.) Audubon Society.—Among the workers of the Los Angeles Audubon Society are several conscientious students whose knowledge of birds and wild life ranks above the amateur. They are the nucleus around which the membership centers; the magnet which attracts and draws unto itself new material. The circle of this Society's influence is widening, as the successful work of the last year fully demonstrates. Two new educational features have been introduced for the benefit of the beginner—observation of 'field identification marks' of live birds and a study of mounted specimens of the same species.

Nature programs by able and scientific speakers; field-day excursions to parks, canyons, and seashore; trail-trips on Saturdays for teachers, children, and tourists, constitute the general activities of the Society, while the 'side

issues' of individual workers read like the pages of a fascinating novel. Twenty enthusiastic talks before federated women's clubs; demonstrations of the value and migration of our wild birds before the public schools; earnest pleas for our feathered missionaries before the different church organizations; the daily hikes of a Nature Guide for the Los Angeles Municipal Mountain Playground Camps; an Audubon Exhibit of photographs, discarded nests and nature books before the State Convention, C. F. W. C., whose reports are too long for the publisher, are some of the 'individual efforts' put forth to further the interests of the Audubon work.

Migratory bird-notes of Los Angeles and vicinity have been carefully prepared and forwarded to BIRD-LORE for publication. An official call from a

Los Angeles Audubon Society

Our Slogan

Protect the birds
 That eat the insects
 That destroy the forests
 That preserve the waters
 That feed the streams
 That fill the resevoirs
 That irrigate the lands

That produce the crops
 That supply the markets
 That provide the foods
 That nourish the people
 Who make the laws
 That govern this Nation of
 Peace-abiding, liberty-loving Americans.

Mrs F. T. Bicknell - President

COMPOSED BY MRS. F. T. BICKNELL, PRESIDENT

representative of the Interior Department of Canada has resulted in the interchange of literature and a coöperative interest in the protection of migratory birds. The fiftieth anniversary of Arbor Day was observed by a special program calling attention to the work of the wood-boring beetles and other insects that destroy the forests. Founder's Day, of the Los Angeles Audubon Society, was established and pioneer work fittingly eulogized, several charter members being present. All measures for the preservation of our forests and wild life have been enthusiastically indorsed.

Literature distributed, articles published, letters written, wild birds 'snapped' and the pictures made into slides to illustrate future talks, complaints of killing, trapping, and caging Mockingbirds promptly reported to higher authority, are some of the minor activities. Being federated with women's clubs, the work of this Society is brought directly before the other clubs through the various

councils, conferences, and conventions in a coöperative way, which tends to create new interests, increase our activities, and broaden our own vision.—(Mrs.) F. T. BICKNELL, *President*.

Meriden (Conn.) Bird Club.—The rambles, as provided by our Field Committee, are much enjoyed by all who take them. The evening meetings are well attended, thoroughly enjoyed, and always furnish a bright, original, and timely entertainment. The public reservoirs and watersheds are fairly well protected against gunners; the Federal laws on birds and migration, fairly well observed and result in a notable increase of wild bird life, especially, as to Black Ducks, Mallards, Wood Duck, Herons, Sandpipers, and Plovers. We feel sure that our school teachers, members of the Club, are doing fine work with the children, interesting them in bird-study and protection.—MARY IVES, *Secretary*.

Minneapolis (Minn.) Audubon Society.—This Society, organized in 1915, became affiliated with the National Association the same year. Our membership dues are \$1 a year, or membership with a year's subscription to BIRD-LORE, \$2. Life membership dues are \$25. We have 75 members in addition to 8 Life members and take 38 copies of BIRD-LORE.

During the past year, eight regular monthly meetings were held in the Audubon Museum Room of the Walker Branch Library. Papers, book reviews, and informal talks on various phases of bird-life and bird-protection were given by different members of the Society and its friends, the program generally closing with a Round Table discussion. Two of these meetings were held in the evening, the others in the afternoon. 'The October program was an 'experience-meeting,' the members responding to roll-call with three-minute reports of their bird observations during the summer, and for the last meeting of the season, in June, an afternoon picnic, with a campfire supper, was held at Glenwood Park. We are indebted to Dr. Thomas S. Roberts, a life member of the Society, for two very helpful and interesting programs, one in January, illustrated by two reels of moving pictures relating to bird-life, and another in March, on 'Sparrows,' followed by motion-picture films.

Mr. William Kilgore, Jr., of the University of Minnesota, delivered an illustrated lecture, 'Birds' Eggs and Birds' Nests,' in December. In October, Charles G. Gorst, under the auspices of the Minneapolis Teachers' League, gave an evening entertainment, 'Whistled Bird-Songs,' at West High School, which all good Audubon members attended with pleasure and profit. Our evening lecture in April, 'Birds and Bird Music,' by Henry Oldys, was well attended. Through the courtesy of Mrs. Frank W. Commons, a delightful, red-letter day was spent at her summer home, 'Tanager Hill' at Lake Minnetonka, in May, and 50 species of birds were identified.

Weekly bird-walks, in four groups, began on March 28 and continued

through the migration season, 141 species being reported. In addition to the usual birds seen in the locality, there were Evening Grosbeaks, Orchard Orioles, White Pelicans, Field Sparrows, Red-bellied Woodpecker (1), and Bald Eagle (1), while Bohemian Waxwings and Horned Larks were unusually numerous. A special study was made of the birds nesting in Washburn Park by Mrs. Phelps Wyman, who reported 59 species nesting within a radius of half a mile.

Lantern talks have been given to several groups of school children by members of the Club, and a series of six talks on 'The Coming of the Birds' was given in the spring at the Sunday-school sessions of the First Unitarian Church by our treasurer, Miss Mathilde E. Holtz. A group of thirty-four public school teachers met in the Audubon Museum Friday afternoons, after school, during the spring and early summer, for a course of sixteen lectures on bird-study and bird-identification given by our vice-president, Miss Mary Tillisch. Public interest in bird-life is undoubtedly growing in this community. We see there is much to be done and are planning increased activity and helpfulness for our Society the coming year.—(Mrs.) GERTRUDE P. WICKS, *Acting Secretary*.

Montclair (N. J.) Bird Club.—The Montclair Bird Club reports a gain in membership of 37. Field-trips have been greatly enjoyed during spring and fall, and individual members were active in field-work during summer vacations, reporting interesting experiences to the secretary. BIRD-LORE has already published an account of Mr. Howland's finding a Brewster's Warbler noted with a blue wing at Wyanokie.

The annual bird-house contest was held in the spring and the 'exhibit' was shown at Madison's book store for a week. Rev. Robert Barbour, our Field Secretary, published 'The Montclair Bird List' in successive issues of a local paper. A questionnaire sent out by the secretary brought answers from forty members and yielded some valuable material for future reference.—LUCY N. MORRIS, *Secretary*.

Missoula (Mont.) Bird Club.—We have just completed a very successful year. Meetings were held regularly, with good attendance. The winter meetings were conducted indoors, the first being held in the Natural Science Hall at the State University, where a series of slides of northwestern birds, prepared by the Oregon Audubon Society and purchased recently by the University, were shown by Dr. Elrod, of the University, and a member of the Bird Club. At these meetings the programs consisted of papers, discussions, bird-magazine reviews, and reports by the members. At roll-call each member responded by relating items concerning the birds he had seen since the previous meeting. This proved to be very interesting.

In the spring, several outdoor meetings were held. The members usually

spent the morning in Greenough Park, on the edge of the city, where they found splendid opportunity for studying birds, meeting at noon to compare notes, conduct a short business session, and have lunch. On several occasions members have given talks on birds to other local organizations that have asked aid. In July, two members made a survey of the birds nesting in Greenough Park. Some members of the Club have made application for bird-banding permits and it is hoped that something may be accomplished along this line later on.—CAROLINE WELLS, *Secretary*.

Natural History Society of British Columbia (Canada).—The subject of birds is discussed at practically every meeting, while on three occasions the entire meeting has been devoted to the local birds. Miss Mary Raker, of Portland, Ore., addressed a special meeting this month at which there were nearly one hundred present.

The matter of a bounty which had been put on Eagles and Owls in this Province, at the instance of the cattle and sheep industries, was taken up, and, following the efforts of ourselves and other societies in British Columbia, the bounty has now been removed. Bird-houses have been put up in various parts of the town.—HAROLD T. NATION.

Nature Study Section of the Women's Contemporary Club of White Plains (N. Y.).—During the past year, we added to our varied interest the study and conservation of wild bird life. Not only has special effort been made during Section meetings to interest members in the planting of shrubbery for the purpose of attracting birds, but the Girl Scouts have been given a prize for collecting the greatest amount of seeds, during the summer, for winter feeding. A number of winter feeding-houses were constructed by the pupils of the manual training classes of the public schools. These were sold to individuals for the price of materials used, and have all been placed—and enjoyed—while the snow was deep. During the spring Wren and Robin nesting-houses were made by the boys. These were a continued source of delight to the friendly little Wrens who invariably moved in as soon as they had discovered the house was available.

Through the courtesy of the Bronx Parkway Commission, permission was granted last fall for the placing of two revolving feeding-houses in one of the most ideal spots on the Parkway. These were kept stocked with nuts, suet, and seeds during the winter, and were fully appreciated during the cold weather when food is scarce and hard to find. We feel that a start has at least been made.—(Mrs.) ANDREA M. HINE, *Chairman*.

Neighborhood Nature Club of Westport (Conn.).—The Club has held meetings throughout the year, with good attendance and unflinching interest on the part of its members. Several meetings have been devoted to wild-flower

study, and one meeting to the habits and nature of spiders. At each meeting, whatever its topic, there is an interchange of experiences with the birds. One member reported a white Robin about her home in November, 1921, and in February, 1922, this member saw frequently, about her home, a Mockingbird.

In January the Club went by train to New York and spent the day in the American Museum of Natural History, thereby gaining much pleasure and profitable information. Another trip, in March, was to the Birdcraft Sanctuary in Fairfield, Conn., where a new unit had recently been added to the Museum. Through the courtesy of Mrs. Wright, president of the State Audubon Society, the Club was permitted the use of the Committee Room of the Birdcraft Bungalow where Mrs. Wright was their guest.

One member of the Club has undertaken bird-banding, and her experiences are listened to with much interest. When the weather has permitted, walks have been taken after the Club meetings and many personal experiences exchanged. Each member who has found printed items of interest to nature-lovers, has brought these to the Club to be read, thus adding to the fund of general information.—(Mrs.) H. P. BEERS, *President*.

Newark (N. J.) Bird Club.—This Club with approximately 150 members, has entered upon its fourth year. Many features of interest have been taken up of late, but with it all the study and protection of birds has been kept as the principal idea.

Illustrated lectures by prominent persons connected with our own or kindred organizations, and papers by Club members, have afforded much pleasure to both members and guests. Guests are always made welcome at the program meetings, the third Monday of each month, from October to June inclusive, the first Monday of each month being given to the business sessions. In addition, one program meeting, each fall and spring, is set aside as 'Guest Night,' when invitations are sent out quite generally. Usually there is quite an addition to the membership following one of these meetings.

An unique feature of the past year has been the work of the Social Committee, under the chairmanship of Mrs. Robert A. Baldwin. This Committee was formed to plan for the 'playtimes' of the Club, and was given the fifth Monday of any month, as its day. The first event was a Hallowe'en party, but later a fine concert was given, and from that and other methods of raising funds, a sufficient amount was secured to purchase an excellent lantern, which was presented to the Club at the close of the season. One of the standing committees is the Ways and Means, which under the leadership of Mrs. Martin Luther Cox, has, each year added a large sum to the treasury. The annual card party given by this Committee has come to be looked forward to by many as one of the season's events.

Frequent field-walks are taken for the purpose of studying bird-life in our county parks, and an all-day field-trip is taken each June and October to more

distant points. During the coming season it is the desire of the members to undertake some new activity of equal importance to their work in the past. At present, plans are under way for a public lecture and program evening on a more ambitious scale than has heretofore been attempted.

It has been the policy of the Club to keep its officers for two-year terms, excepting the secretary and treasurer, who are retained indefinitely.—(Mrs.) JAMES P. CLEMENTS.

Pasadena (Calif.) Audubon Society.—Growth, both in numbers and enthusiasm, has been characteristic of the Pasadena Audubon Society during the past year. Enrollment of 50 new members brings the membership up to 200. Practical bird-study has been an important feature throughout the year.



TEACHING CHILDREN TO LOVE THE BIRDS
An exhibit by the Pasadena (Calif.) Audubon Society

This has been greatly assisted by illustrated talks at the meetings by Prof. Roland C. Ross, a close student of bird-life and a veritable artist in imitating their songs. Supplementary to these have been frequent bird-walks which have given great zest in the study to the members and their friends. Long lists of native and migratory birds have been made and reported. The city aviary continues to be an unfailing source of pleasure and interest to the community, and, under the wise supervision of Dr. E. C. Bull, is in a most flourishing condition.

The Society has been active in indorsing, by letters to our senators and

representatives, those bills that will be, either directly or indirectly, a protection to birds and other wild animals. Conspicuous among these, to which favorable replies have been received, is the bill that takes action against commercial concessions in the Roosevelt-Sequoia National Park, and another is an appropriation bill providing a Federal forest experimental station in the San Jacinto Mountains in California, in coöperation with the University of California.—(Miss) ALICE W. PITMAN, *Secretary*.

Province of Quebec (Can.) Society for the Protection of Birds.—Seven general meetings were held during the year for the members and interested friends. The opening meeting was at McGill University, during Centenary Week, when the speaker was Dr. Casey A. Wood, the recent donor to McGill's Library of the splendid collection of 900 volumes devoted to birds known as the 'Emma Shearer Wood Library of Ornithology.' At the annual meeting in January, Wallace H. Robb, investigatory officer for the Society, gave an illustrated account of his summer trip to the Magdalen Islands with Herbert K. Job, of the National Association of Audubon Societies.

In February, Miss Edith L. Marsh of 'Peasmarsh' spoke on the private sanctuary. Miss Marsh's sanctuary, on the shores of Georgian Bay, was one of the first private wild-life sanctuaries in Canada, and was set aside recently as such by the provincial government of Ontario at the request of the owner. Other speakers were the president, L. McI. Terrill; the vice-president, Napier Smith, of Magog, Quebec; H. Mousley, Naturalist of Hatley, Quebec; W. A. Oswald, and W. Gordon Wright.

The annual public lecture in March was given by Stuart L. Thompson, of Toronto, who held the close attention of a very large audience. The following morning his son spoke to over four thousand of the Junior Members in the Imperial Theatre. Mr. Thompson also delivered two lectures to pupils in the Montreal high school. Addresses to both children and adults were given by members throughout the year in schools, summer camps, and in nearby towns.

Bird Clubs were established at the Boys' Farm and Training School at Shawbridge, Quebec. In the early spring, the Society arranged for an exhibition of specimens of migratory birds from the Wild Life Division of the Canadian National Parks. This exhibition was kept two weeks in a prominent window in the downtown business district, and two weeks in the uptown shopping center. Eighteen specimens of birds were on exhibition. These birds were confiscated under the Migration Birds Convention Act.

During the year a commencement has been made towards a slide library. The Society has also acquired its own lantern. More sanctuaries for the province have been urged upon the provincial government, and a campaign is under way to encourage more of the smaller private sanctuaries which are so valuable. A great feature of the plan has been the increased press interest.—(Mrs.) W. C. L. DYER, *Hon. Corresponding Secretary*.

Rockaway (N. Y.) Bird Club.—During the year the various members have maintained bird-houses, feeding-stations, and bird-baths about their home-grounds. Both indoor and field meetings were held. One lecture was given by a Club member, Charles Hewlett, and another by Edward Avis. Mr. Avis lectured in the high school assembly-room and had a large and enthusiastic audience—many of whom were children. Our teacher-members have continued their splendid educational work in the schools, forming Junior Audubon Clubs, maintaining nature-study clubs, and giving talks. The members of the High School Bird Club have been encouraged to give talks to the grammar and primary grades, and this has been of mutual benefit. These talks have been made easier for the speakers and more interesting for the audience by the use of stuffed bird specimens generously loaned by the American Museum of Natural History.

According to our usual custom, prizes were given to the members of the Junior Clubs for the best individual observations and reports. The prizes were a set of colored plates 'Birds of New York,' published by the New York Museum, and any one of the Pocket Nature Guide series. Two winning contestants chose the 'Tree Guide.' One interesting meeting consisted of bird-drawings in colored chalk by one of our members. Large sheets of drawing-paper were used, and an attempt was made to leave the most marked characteristic of the bird until the last. This resulted in sustained interest and in nearly every instance some member would name the bird before the picture was completed. After the completion of each picture, a short talk was given on the bird's characteristics. It is with sincere regret that we report the death of one of our members, a staunch friend of the birds, Mrs. Daniel Lord. Her beautiful estate 'Sosiego' has been for a long time the haunt of the Black-crowned Night Herons. At present the colony numbers about sixty.

It was discouraging, just when the members believed the Club to be exerting an influence for good throughout the community, to discover that, between our visits to the Sanctuary, an attempt had been made by vandals to destroy it. The boxes and feeding-stations were torn down and demolished and general havoc wrought. The trees, bushes, and pond, however, are still there and we hope that our feathered proteges have not noticed the intrusion, but will continue to allow us the opportunity of furnishing them with at least a share of their next winter's food.—(Miss) MARGARET S. GREEN, *Secretary*.

St. Louis (Mo.) Bird Club.—An autumn bird-walk, in addition to the program of spring walks, was conducted last October, bringing its reward of several interesting migrants novel in the field experience of many members of the Club. At a luncheon of the Club preceding the Christmas holidays, plans were formed for decorating trees for the birds, and prizes were offered for the best results. Children in several public and private schools carried the plans into effect in the city parks and school-grounds of the suburbs. During the

business meeting following the luncheon, the Club went on record as strongly opposed to the proposition of caging native song-birds in the St. Louis Zoo. At this meeting, also, prizes were established for the best photographs of Quail and Cardinals at feeding-stands in St. Louis during January and February, 1922. Our Christmas bird-census was taken as in previous years, at Creve Coeur Lake, and reported to BIRD-LORE. Considerable work has been done in the development of the St. Louis Bird Sanctuary, established by the Park Department on the recommendation and plans of the Bird Club. Grading of this 8-acre tract on the bluffs of O'Fallon Park is now completed; fences on the three sides adjoining private property have been built; planting of trees and shrubs has proceeded. The affairs of the Club have reached an extent and diversity calling for the special attention of subcommittees and expert advisors! Therefore, at the annual meeting, committees were created on Bird Sanctuary, Posters, Junior Membership, and Bird-Walks, and the offices of corresponding secretary and legal advisor were named.—(Dr.) R. J. TERRY, *President*.

St. Petersburg (Fla.) Audubon Society.—The Junior Audubon work in our schools, which leads in the state, has been due largely to the untiring efforts of Mrs. S. E. Barton, who for twelve years has been the faithful secretary of



SECTION OF AN EXHIBIT BY THE ST. PETERSBURG (FLA.) AUDUBON SOCIETY

the St. Petersburg Audubon Society. Mrs. Barton has, on account of added responsibility in her family, resigned, and the loss to the Society cannot be estimated. The work will be carried on by Mrs. Susan Foster, treasurer, and Mrs. J. C. Owen, recording secretary. There were over a thousand Junior Audubon Members enrolled when ordering this year's school leaflets. The Central Primary, Miss Sterling, principal, was 100 per cent in Junior Members and received the banner offered by the Society for proficiency in Bird-Work.

The St. Petersburg Society offers annually \$5 in gold for the bird-house made and put up by boy or girl that shall house a family. A prize of field-glasses is also given for the best list of birds seen on a specified hike, and a bird-book is given for the best story written on the value of bird-protection. The picture in this issue, of the bird-houses made by the boys of the Manual Training Department, will give some idea of the Audubon prizes offered. This does more to create public sentiment for bird-protection than anything else.

The state president organized a county society in Pinellas, with Rutherford P. Hayes, son of the late President Hayes, at the head. As the county of Pinellas had already been declared a bird sanctuary, their work will be to maintain it and to promote Junior Audubon work in the schools. Tarpon Springs will soon have an Audubon Society, with Mrs. Ada Fernald at its head. Mrs. Tippetts had Mrs. Fernald for her efficient aid in the bird-work at Chautauqua this summer and incited her interest then.

The atmosphere of Pinellas County is such that birds are flocking hither, assured of safety. The sportsmen's organization of the county coöperates in every way and is offering a bounty for rattlesnakes and other enemies of the game-birds. The Audubon Society is alive to the needs of a state game commission and is bending its energies to remove from Florida the stigma of being one of the three states of the Union without such officials.—(Mrs.) KATHARINE B. TIPPETTS, *President*.

Sand Hill Bird Club of Pine Bluff (N. C.).—This is a winter Club, open from November until June. There are 50 members—25 grown-ups and 25 Juniors. We play bird golf, recognizing birds, by sight only, since they are not in song. Two players, accompanied by a bird scout, constitute a 'set.' To qualify, a bird scout, or caddie must know 30, 50, or 75 birds. Each scout wears a badge showing whether he is a first-, second-, or third-class scout. He receives a fee for taking out tourists. Time of short game 1 hour and 30 minutes; time of each link 10 minutes. Time of long game 2 hours and 15 minutes.

Birds only count when recognized by two of the three players in any set. Male birds count 1, and female birds count 3. The best Junior set challenges the best grown-up set and vice versa. For championship games, prizes are awarded. Highest score, long game, season of 1922-23; best single link 13. (Sample bird golf score cards on application.)

Many of our members have bird gardens 16 by 16 feet, planted to millet, sorghum, sunflowers, etc., for winter use of our birds. At the bird golf headquarters we have an acre and a half planted to feed for birds. We estimate twenty-five birds to the acre around our homes and especially around the club house. This coming winter we hope to make it fifty birds to the acre, by attracting more of the resident birds, and many immigrants that usually winter further south.—JOHN WARREN ACHORN, *President*.



HOME OF THE SAND HILL BIRD CLUB OF PINE BLUFF, N. C.

Saratoga (N. Y.) Bird Club.—Our meetings have been held monthly, omitting July and August. Two were planned for out in the country. The following subjects were presented at the meetings: 'Bird Houses and Folding Trays;' 'Organized Work for Protection of Bird-Life;' 'The Burrough's Memorial Association;' 'The Ways of the Four-footed;' and 'Songsters of the Swamp.'

In April the annual public lecture was given. We were most fortunate in having Dr. Arthur A. Allen, who spoke on 'What Birds Are Doing for Man.' At our annual election, in June, the Program Committee was enlarged to ten; each member is held responsible for one meeting.—(Miss) CAROLINE C. WALBRIDGE, *Secretary*.

Savannah (Ga.) Audubon Society.—We have had, within the past year, a number of interesting activities which have afforded a good deal of pleasure to our members as well as more or less enlightenment to the community. Regular monthly meetings were held from January to June, at some of which Prof. W. J. Hoxie talked on local birds, using illustratively the De Renne collection of Chatham County birds which he mounted some years ago. During the spring there were several early morning bird-walks, headed by competent leaders, in parks, cemeteries, and private estates. From two to five automobiles brought their loads of nature-lovers at 6 o'clock to what proved really fascinating occasions.

Mrs. V. H. Bassett, chairman of the Publicity Committee, did excellent work for the Society in having published each week in the Sunday edition of the *Savannah News*, an article written by one of its members, on some bird, giving its description, habits, range, economic value, and so forth. These articles were instructive and useful to the community as well as to members. Mrs. C. B. Gibson, chairman of our Educational Committee, interested the children of the county schools by using to illustrate her talks the Audubon colored bird-charts, of which we secured several for that purpose.

On February 28 the Society welcomed T. Gilbert Pearson, of New York, by filling the largest theatre in the city to hear his most instructive and entertaining lecture, illustrated with slides and moving pictures of bird-life. In April we coöperated with Mr. Pearson in arranging for him a trip to the Egret colonies on the coast islands. Ossabaw Island was visited April 12 and St. Catherine's on the 13th, and our Society takes this opportunity of publicly expressing its warm appreciation of the courtesies extended to it in Mr. Pearson's behalf by Messrs. Strachan & Co., the owners of Ossabaw Island, and to the Rauer's estate, to which St. Catherine's belongs. Mr. Pearson was much pleased with these trips, finding unexpectedly large nesting colonies of White and Snowy Egrets, besides many other varieties of Herons and water-birds. Being under private ownership, absolutely protected from poachers and plume-hunters, not only permanence, but growth may be expected in both these colonies.

In the absence abroad of our secretary, Mrs. B. F. Bullard, I am sending this report.—H. B. SKEELE, *President*.

Spokane (Wash.) Bird Club.—Our Club is now entering its seventh year, and though our membership does not increase materially (we have between 40 and 50 members), we have done some worth-while things. We own one hundred mounted bird specimens which are on exhibition at the City Museum where we hold our meetings. We have had ten meetings during the year with excellent programs. We are most fortunate in having for our president, Walter Bruce, whose lantern slides of local birds, flowers and scenery are admirable. He himself makes the photographs and prepares and colors the slides. He

usually favors us with two lectures each year. We have also on our membership list, J. L. Sloanaker, who has made several contributions to bird science by listing new bird species in the West and Southwest.

Another of our members is T. A. Bonser, curator of our museum and a biological authority. Dr. Arthur H. Benefiel, one of the founders of our Club and our best-informed authority on birds, eastern and western, left us last winter. The Club is planning a memorial bird-fountain in Greenwood Cemetery, where he rests among the birds and flowers he loved so well. Others of our most enthusiastic members have left us for new fields and, we hope, new bird clubs, so what we have lost may be another's gain. We have not changed the course of nations, but we have brought great pleasure into the lives of many of our members by introducing them to the fascinating field of bird-study. It is our plan to have bird-walks every month, or oftener. We did not have our usual number last year because of the inclemency of the weather.

Last spring several money prizes were offered by members for the best bird-houses built by school children. This exhibit was rather disappointing, not from the number of houses exhibited, but from the standpoint of architecture. They were ornamental rather than practical, and made for no particular type of bird. To one somewhat versed in bird-house lore, it was a mirth-provoking collection of miniature dwelling-houses, dog-kennels, and mutilated starch-boxes. For results, specifications and directions should be furnished each aspirant for honors in a bird-house contest. At least five of our members have appeared on different club programs, hoping thereby to increase a little knowledge of our home birds to those who lie in darkness so dense that they cannot tell whether English Sparrows or Wrens have taken possession of their bird-boxes.—(Mrs.) ELIZABETH KAYE BUCHECKER, *Secretary and Treasurer*.

Stanton Bird Club (Maine).—In the past year we have held six regular meetings, with talks on forestry, birds, gardens, and subjects of general interest to nature-lovers. We have added 46 new members. From March 29 to June 8 we took eighteen early morning walks, three sunset walks, and three Sunday afternoon walks, with an average attendance of 16. Seventy-nine kinds of birds were identified. Guest night we entertained an audience of about 200 with the film of the 'Birds of Killingworth,' combined with a musical and literary program. Three out-of-door meetings, with hikes and picnic suppers, were delightful affairs. Our exhibition in April lasted four days, and was visited by hundreds of school children and adults. A special feature was the exhibit of 'Nature-Study in the Schools,' arranged by our school teacher members, which included the work done by their Junior Audubon children, and attracted a great deal of attention.

April 14 was proclaimed Bird Day by Governor Baxter, and 53 Juniors and Seniors went out on an early morning bird-walk, led by our president, Mr. Kavanagh. A delightful feature of our Club life is the way children and adults

mingle on all occasions. On Arbor Day we planted a memorial elm. In May' when tent caterpillars swarmed in hordes along the roadsides, our Club was the first organization in the state to issue a call to action in the newspapers, and go out equipped to destroy the nests.

We have had a collection of 300 bird-skins, many of them of great value, donated to us by a man who formerly collected for the British Museum and Smithsonian Institution. A collection of mounted ferns has been given us by John Parlin, who has been associated with Fernald in collecting plants for the Harvard herbarium. Thirty mounted birds have come to us from a friend of the Club. Our treasurer, Miss Miller, has given several talks on birds, illustrated with the Audubon charts, to the children on the community playgrounds, many of whom did not know by name the only bird they were familiar with, the English Sparrow.

Believing that birds and gardens belong together, we have tried to interest people in planting shrubs, flowers, and trees, feeling reasonably sure that the gardener will become the bird-lover as soon as the birds attracted by his planting come to live near him. We have begun the planting of a 'Peony Memorial' on the college campus, where a row of named peonies borders each side of a broad walk 130 feet long, in memory of the beloved professor for whom our Club is named.

The greatest joy that has come to us this year is the gift from three of our members, Dr. and Mrs. A. W. Anthony and Miss Kabe Anthony of 'Thornerag,' a beautiful tract of 45 acres of woodland 2 miles from town, as a memorial to be known as the Stanton Bird Sanctuary. We are now incorporated 'for the increase and protection of wild birds, the stimulation of an interest in bird-life, and the establishment of a model bird sanctuary, and to foster and encourage research work in all branches of natural science, and in general to inculcate the love of nature and science, seeking to preserve God's out-of-doors and the wild life therein for the present and future happiness of all our citizens to perpetuate the memory of Professor Jonathan of Stanton.'"—DAISY DILL NORTON, *Secretary*.

Staten Island (N. Y.) Bird Club.—During the past year the Club has continued its monthly walks, which have been well attended, the number participating having usually been 30 to 40 people, and in one instance 70. Frequently the walk has ended at the cabin in the woods, built by our members, where coffee is made and supper is eaten around the camp-fire. The field-secretary, Carol Stryker, has kept a list of the species of birds (115 in number) seen on these walks. The president of the Club since 1919, William T. Davis, whose interests include plants and insects as well as birds, has added to the value of the walks by identifying the species encountered and by his photographs of the various gatherings.

The Club has also held four indoor meetings during the year, either in the

Staten Island Public Museum or at the residence of members, Mrs. Louis A. Dreyfus, Mrs. Walter T. Ligh, and A. W. Callisen having each extended their hospitality. At one such meeting Edward Avis gave his 'Birdland' recital, assisted by Mrs. F. L. Hillyer, accompanist, Edward J. Burns, Miss Kathryn Trench, and the following children: Victoria Ellenberg, Richard Leng, Paul Kuhn, Edith Trapp. At other meetings the work of conserving wild life has been discussed by Mr. Davis, Mr. Rader, Dr. John J. Schoonhoven, and others; or the reports on winter feeding stations (of which the Club maintains sixteen)



MEMBERS OF THE STATEN ISLAND (N. Y.) BIRD CLUB

has been the subject. The meeting of November 5, 1921, was pleasantly signalized by the presence of Mrs. Wilhelm Knauth, Miss Ida F. Thies, Hon. Howard R. Bayne, Mr. and Mrs. A. W. Hoffmeyer, and Mrs. H. A. Witte, who were among the founders of the Club in 1914.

Public interest in the Staten Island Bird Club is shown by its increasing membership, now 265, and by the press notices it receives, not only from local newspapers, but in the large dailies of Manhattan. Thus, while the Club has perhaps accomplished no great scientific results, it has in a modest way stimulated the interest in bird-life in its own locality.—CHARLES W. LENG, *Secretary*.

Topeka (Kans.) Audubon Society.—The year just completed was perhaps as successful a one as could be desired for a new organization. The chief activities, aside from the meetings, have been field-trips and the obtaining of outside speakers. Three of the latter were secured last year, viz., Mrs. Bessie

Price Douthitt Reed, of Kansas University; Rev. R. B. Peabody, of Blue Rapids, Kans., spoke twice; and Charles Bowman Hutchins, a very able imitator of bird-songs. In honor of Mr. Hutchins we gave a banquet, which did much to arouse the zeal of the members in regard to bird-protection and the dissemination of information.

A bird-house contest was conducted among the school children of the city, which was very successful, many fine pieces of work being on display. We now have about 50 members and hope to increase the number as well as the enthusiasm of the old members for the work of the present year.—A. SIDNEY HYDE, *Secretary*.

Ulster (Pa.) Nature Club.—Ours is a small country village, and the work done is necessarily somewhat different from that in the larger Clubs. Interest has continued to manifest itself in various ways. We are able to interest others in securing posters, which were put up on several farms, protecting Grouse, Pheasants, and Quail, which are locally very scarce. We gave to our school Audubon Bird Charts, which have been helpful in arousing the interest of teachers and pupils. One of our teachers, Miss Louise Reynders, conducted a contest in building bird-houses, several very good houses resulting, which were afterwards put up in different places.

Last winter, feeding-places were established at the homes of the members, with the usual winter bird visitors. Our Christmas Census was participated in by most of our members, this being the third time we have taken it. As heretofore, each member has kept a list of birds seen in our locality during the year, the highest list being 118. We took several all-day 'hikes,' finding many new plants and flowers, as well as seeing many birds. A very pleasant outing was taken in May, when the Club spent a day at Ithaca, N. Y., and accompanied Dr. Allen through the bird sanctuary at that place.

Our most successful attempt to interest the community in nature work was when we gave an entertainment explanatory of our work and of what we hoped to accomplish. Our president, Mrs. Mather, and others, gave short talks on our work and plans.—MARTHA A. McMORRAN, *Secretary*.

Vigo County (Ind.) Bird Club.—In the past year we have worked principally for the extension of interest in birds in the public schools. The secretary of the Club wrote an interesting bird play which was very cleverly dramatized by school children and presented first at their school and afterward at a meeting of the Club. A series of very good stereopticon views of birds was shown in some of the schools.

A number of bird-hikes were taken with groups of school children. A Junior Society was formed in Garfield High School in Terre Haute. Two high school boys did some very good work in bird-photography. One hundred bird pictures were given to a children's library.—SALLIE DAWSON, *President*.

West Chester (Pa.) Bird Club.—This Club continues to grow in enthusiasm and usefulness. Biweekly meetings of a high character have been held during the past year, the sixteenth since the Club's organization. At one of the meetings, Charles Pennock gave an account of his studies of Florida Burrowing Owls. He proved conclusively that the male and female birds of this species have well-defined markings by which the sex can be determined—a fact hitherto unknown. At another meeting Mr. Pennock told of a recent study he had made of a Seaside Sparrow near Cape Sable.

Dr. S. C. Schmucker also gave a lecture at a meeting the past year on "The Bird as a Flying-Machine." Several Club members spent the winter in distant fields and reports of their observations were given at the meetings. From North Anson, Maine, came accounts of the bird-life in the far north, while Dr. Ehinger, a former president, contributed reports from the state of Washington. A full account of each meeting was published in the daily paper. Citizens of the town, in this way, become interested in our efforts.

Work among the school children has grown and the beauties of nature have been opened to them. Through the influence of the Bird Club several children have become experts in collecting and identifying the common moths and butterflies. Several members have erected feeding-stations and bird-baths, thus increasing the number of song-birds in this locality.



SCENE FROM 'THE BLIND SHALL SEE,' A PLAYLET PRESENTED BY
THE WYNCOTE (PA.) BIRD CLUB

The most successful field-trip was that to Pequea on the Susquehanna River. This annual pilgrimage was made at the height of the wave of migrants, and the list made during the two days contained many birds of rare interest.

Individual members have done much to spread the love and knowledge of birds. Several young people have been taken into the field during the migration period and when interest was greatest they were supplied with bird-guides. This has resulted in a continual chain of blessings, the results of which are beyond computation.—LILIAN W. PIERCE, *Secretary*.

Wyncote (Pa.) Bird Club.—Among the outstanding features of the year's activities of the Wyncote Bird Club are the following: A delightful evening of moving pictures by Ernest Corts, of Buck Hill Falls, Pa., showing intimate and beautiful scenes in the lives of many of our common birds, also the winter sports in that beautiful country; several other evenings of nature-study films by William L. and Irene Finley; an illustrated lecture by Charles N. Shoffner, of the Liberty Bell Bird Club, which our Club gave to the children of the public schools; and the presentation, in a wood in Wyncote, of Mr. Shoffner's playlet, 'The Blind Shall See,' by some of the Junior Members of the Club, which made a strong appeal to the community for the protection of birds.

A number of delightful bird-walks were taken, and in May more than eighty



WILD BIRDS IN THE PLAYLET 'THE BLIND SHALL SEE'

of our members attended the wonderful 'Bird Masque' by the Charles W. Henry School of Germantown in their Bird Sanctuary in the Upper Wissahickon. The Wyncote Bird Club has gained in numbers and strength during the year, and the prospects for the winter look good.—ESTHER HEACOCK, *Secretary*.

JOHN H. KOCH & COMPANY, Certified Public Accountants
55 Liberty Street, New York

October 25, 1922.

THE AUDIT COMMITTEE,
National Association of Audubon Societies, Inc.,
1974 Broadway, New York, N. Y.

Gentlemen—We have completed our customary examination of the books, accounts, and records of The National Association of Audubon Societies, Inc., for the year ended October 19, 1922, and present herewith the following Exhibits:

- EXHIBIT A—BALANCE SHEET AS AT THE CLOSE OF BUSINESS, OCTOBER 19, 1922.
- EXHIBIT B—INCOME AND EXPENSE ACCOUNT, GENERAL FUND.
- EXHIBIT C—INCOME AND EXPENSE STATEMENT, EGRET PROTECTION FUND.
- EXHIBIT D—INCOME AND EXPENSE STATEMENT, CHILDREN'S EDUCATIONAL FUND.
- EXHIBIT E—INCOME AND EXPENSE STATEMENT, DEPARTMENT OF APPLIED ORNITHOLOGY.
- EXHIBIT F—INCOME AND EXPENSE STATEMENT, FUND FOR NATIONAL PARKS' DEFENSE.
- EXHIBIT G—INCOME AND INVESTMENTS, PERMANENT FUND OF 1922.
- EXHIBIT H—STATEMENT OF CASH RECEIPTS AND DISBURSEMENTS.

All disbursements made on account of your various funds were substantiated either by duly approved and receipted vouchers or cancelled endorsed checks.

We examined all investments held at the safe deposit vaults accompanied by your Messrs. Pierson and Carter, and found same in order, excepting the H. Dougherty loan on which a principal payment of \$500.00 was defaulted on February 16, 1922. We were informed that this matter has received consideration from your Board.

Confirmations were received from your depositories, certifying to the balances as shown on your books.

Submitting the foregoing, we are

Very truly yours,

JOHN H. KOCH & CO.,
Certified Public Accountants

The Report of the Treasurer of the National Association of Audubon Societies, for Year Ending October 19, 1922

Exhibit A

ASSETS

<i>Cash in Banks and at Office (Exhibit H).....</i>			\$40,793 96
<i>Account Receivable.....</i>			1,000 00
<i>Furniture and Fixtures—</i>			
Balance October 19, 1921.....	\$1,479 75		
Additions this year (Net).....	715 58		
		\$2,195 33	
<i>Less—Depreciation.....</i>		442 31	
			1,753 02
<i>Inventory of Plates, etc. (Nominal Value).....</i>			500 00
<i>Bird Island Purchase, Orange Lake, Fla.....</i>	\$250 20		
<i>Buzzard Island, S. C.....</i>	300 00		550 20
<i>Audubon Boats—</i>			
Balance, October 19, 1921.....	\$1,539 57		
<i>Less—Sale of 'Royal Tern'.....</i>	\$1,000 00		
Loss on Sale of 'Royal Tern'.....	513 12	1,513 12	
			26 45
<i>Investments, Endowment Fund—</i>			
Bonds and Mortgages on Manhattan and Bronx			
Real Estate.....	\$441,000 00		
U. S. Government Obligations (Par \$28,500.00). ..	28,455 75		
		\$469,455 75	
<i>Mary Dutcher Memorial Fund—</i>			
Bonds and Mortgages on Manhattan Real Estate.....	7,100 00		
<i>Roosevelt Memorial Fund—</i>			
U. S. Government Obligations (Par \$12,000.00).....	11,839 65		
<i>Permanent Fund of 1922—</i>			
Bonds and Mortgages on Manhattan and Bronx			
Real Estate.....	\$189,000 00		
U. S. Government Obligations (Par \$11,500.00). ..	11,546 19	200,546 19	
<i>Total Investments.....</i>			688,941 59
<i>Total Assets.....</i>			\$733,565 22

LIABILITIES AND SURPLUS

Endowment Fund—

Balance, October 19, 1921.....		\$463,399 04
Received from Life Members.....	\$15,225 00	
Received from Gifts.....	1,123 55	
Transfer of Surplus in excess of \$10,000.00 at October 19, 1922.....	1,191 72	17,540 27

Balance October 19, 1922..... \$480,939 31

Mary Dutcher Memorial Fund—

Balance October 19, 1922..... 7,737 70

Permanent Fund of 1922:

Balance October 19, 1922 (per Exhibit G)..... 201,851 42

Special Funds—

Egret Protection Fund (per Exhibit C).....	\$2,549 07	
Children's Educational Fund (per Exhibit D).....	2,319 01	
Department of Applied Ornithology (per Exhibit E).....	34 85	
Roosevelt Memorial Fund.....	15,452 72	
Fund for National Parks' Defense (per Exhibit F).....	1,769 39	
		22,125 04

Account Payable..... 10,911 75

Surplus—

Balance, October 19, 1921..... \$10,238 53

Add: Gain for year ended October 19, 1922 from Income

Account (Exhibit B)..... 953 19

\$11,191 72

*Deduct: Excess above \$10,000.00 transferred to Endow-
ment Fund.....*

1,191 72

Balance, October 19, 1922..... 10,000 00

Total Liabilities and Surplus..... \$733,565 22

INCOME AND EXPENSE ACCOUNT—General Fund

Exhibit B

EXPENSE

Wardens' Services and Reservations—

Salaries.....	\$660 00
Reservation Expense.....	221 77

\$881 77*Educational Effort—*

Administration Expense.....	\$13,589 93
BIRD-LORE, Extra Pages Annual Report.....	1,204 25
BIRD-LORE to Members.....	5,388 07
Bird Books.....	2,655 15
Colored Plates in BIRD-LORE.....	203 50
Contributions to Florida Audubon Society.....	737 50
Contributions to Illinois Audubon Society.....	100 00
Drawings.....	175 00
Electros and Half-Tones, Prints and Negatives.....	196 03
Educational Leaflets.....	2,997 41
Field-Glasses.....	2,005 11
Field Agents' Salaries and Expenses.....	6,423 40
Legislation.....	385 52
Library.....	248 14
Printing, Office and Field Agents.....	715 07
Slides.....	993 15
Summer School Work.....	115 00
International Bird Protection.....	1,072 19

39,204 42*General Expense—*

Annual Meeting Expense.....	\$441 23
Auditing.....	125 00
Cartage and Express.....	28 13
Loss on Sale of Boat.....	513 12
Depreciation on Office Furniture.....	442 31
Electric Light.....	30 11
Exchange on Checks.....	16 05
Envelopes and Supplies.....	455 90
Insurance.....	207 86
Legal Service.....	435 00
Miscellaneous.....	289 07
Multigraphing.....	123 05
Publicity and Propaganda.....	8,704 20
Office and Storeroom Rents.....	2,270 15
Office Assistants.....	7,810 71
Postage.....	275 89
Supply Department Expense.....	7,078 11
Stencils, Addressograph Machine.....	47 81
Telegraph and Telephone.....	265 66

29,559 36*Total Expense.....*

\$69,645 55

Balance being Net Profit for year carried to Surplus (Exhibit A).....

953 19

\$70,598 74

INCOME

<i>Members' Dues</i>		\$22,765 00
<i>Contributions</i>		6,440 15
<i>Income from Investments</i>		27,645 01
<i>Supply Department Receipts:</i>		
Bird Books.....	\$3,168 19	
BIRD-LORE.....	742 59	
Bulletins.....	102 20	
Cabinets.....	520 42	
Charts.....	918 42	
Educational Leaflets.....	4,840 54	
Field-Glasses.....	2,423 75	
Slides.....	1,031 57	
		13,747 68
<i>Total Income</i>		\$70,508 74

EGRET PROTECTION FUND
INCOME AND EXPENSE STATEMENT

Exhibit C

<i>Balance, October 19, 1921</i>		\$2,706 75
INCOME—		
Contributions.....		2,154 30
		\$4,861 05
EXPENSE—		
Egret Wardens.....	\$1,790 71	
Inspecting Rookeries.....	113 07	
Legal Services.....	18 20	
Painting and Pictures.....	288 00	
Reservation Expenses.....	102 00	
		2,311 98
<i>Balance, unexpended, October 19, 1922 per Exhibit A</i>		\$2,549 07

CHILDREN'S EDUCATIONAL FUND INCOME AND EXPENSE STATEMENT

Exhibit D

<i>Balance, October 19, 1921</i>		\$11,451 63
INCOME—		
Contributions	\$16,398 00	
Junior Members' Fees	22,217 90	
	\$38,615 90	
Transferred from Permanent Fund 1922—Income	4,003 11	42,619 01
		\$54,070 64
EXPENSES—		
Administration Expense	\$1,500 00	
BIRD-LORE to Junior Clubs	4,831 13	
Buttons to Junior Clubs	2,761 37	
Colored Plates in BIRD-LORE	203 50	
Cartage and Express	236 83	
Drawings	35 00	
Field Agents' Salaries and Expenses	8,467 29	
Half-Tones for Publications	45 13	
Miscellaneous	306 74	
Office Rent	1,056 00	
Office Supplies	215 72	
Postage on Circulars and Literature	7,450 00	
Printed Circulars to Teachers	1,923 49	
Printed Envelopes	963 50	
Printed Leaflet Units for Junior Members	13,911 75	
Reports and Publicity	1,135 73	
Soliciting for Junior Members	722 28	
Stenographic and Clerical Work	5,986 17	
		51,751 63
<i>Balance, unexpended, October 19, 1922 per Exhibit A</i>		\$2,319 01

DEPARTMENT OF APPLIED ORNITHOLOGY INCOME AND EXPENSE STATEMENT

Exhibit E

<i>Balance, unexpended, October 19, 1921</i>		\$18 01
INCOME—		
Earnings of Mr. H. K. Job, Public Lecturer	\$523 84	
Rental and Sale of Films	228 00	
		751 84
		\$769 85
EXPENSES—		
Agents' Salary and Expense	735 00	
<i>Balance, unexpended, October 19, 1922 per Exhibit A</i>		\$34 85

FUND FOR NATIONAL PARKS' DEFENSE

INCOME AND EXPENSE STATEMENT

Exhibit F

<i>Balance, unexpended, October 19, 1921</i>	\$2,463 93
EXPENSES—	
Publicity on behalf of National Parks.....	\$194 54
Contributions for improving Yellowstone Park.....	500 00
	694 54
<i>Balance, unexpended, October 19, 1922 per Exhibit A</i>	\$1,769 39

PERMANENT FUND—1922

Exhibit G

- For* (1) The education of the general public in the knowledge and value of useful and beautiful and interesting forms of wild life, especially birds.
- (2) The actual protection and perpetuation of such forms of wild life on suitable breeding and other reservations.
- (3) Protecting and maintaining adequate protection for such forms of wild life in all parts of the Western Hemisphere.
- Or* (4) For any one of these purposes.

INCOME AND INVESTMENTS

INCOME—

Donor's Gift to Permanent Fund.....	\$200,000 00
Interest on U. S. Government Obligations.....	3,616 49
Profit on Sales of U. S. Government Obligations.....	1,851 42
Interest on Bank Balances.....	311 62
Interest on Funds pending Investment in Mortgage on Manhattan Real Estate.....	75 00
	\$205,854 53
<i>Less: Income transferred to Children's Educational Fund..</i>	<i>4,003 11</i>

<i>Balance of Fund per Exhibit A</i>	<i>\$201,851 42</i>
--	---------------------

INVESTMENTS—

Mortgages on Manhattan and Bronx Real Estate.....	\$189,000 00
U. S. Government Treasury Notes (par value, \$11,500.00)....	11,546 19
<i>Total Investments per Exhibit A</i>	<i>200,546 19</i>

<i>Uninvested Balance, October 19, 1922</i>	<i>\$1,305 23</i>
---	-------------------

STATEMENT OF RECEIPTS AND DISBURSEMENTS

Exhibit H

RECEIPTS—

Income, General Fund.....	\$70,598 74	
Egret Protection Fund.....	2,154 30	
Children's Educational Fund.....	38,615 90	
Department of Applied Ornithology.....	751 84	
Permanent Fund of 1922.....	205,854 53	
Endowment Fund.....	16,348 55	
Roosevelt Memorial Fund.....	777 56	
<i>Total Receipts for year ended October 19, 1922.....</i>		\$335,101 42
<i>Add: Reimbursement of Prepayment of Interest on Endowment</i>		
<i>Fund Investment.....</i>		23 75
<i>Cash Balance, October 19, 1921.....</i>		43,005 83
		\$378,131 00

DISBURSEMENTS—

Expenses, General Fund.....	\$68,690 12	
Egret Protection Fund.....	2,311 98	
Children's Educational Fund.....	40,839 88	
Department of Applied Ornithology.....	735 00	
Fund for National Parks' Defense.....	694 54	
Permanent Fund of 1922—Investments.....	200,546 19	
Endowment Fund Investments.....	\$52,600 00	
<i>Less: Investments Reduced.....</i>	38,949 25	
		13,650 75
Purchase of Furniture.....	715 58	
Liquidation of Bills unpaid on October 19, 1921.....	9,153 00	
<i>Total Disbursements for year ended October 19, 1922.....</i>		\$337,337 04
<i>Cash Balance, October 19, 1922 per Exhibit A.....</i>		\$40,793 96

NEW YORK, October 30, 1922.

T. GILBERT PEARSON, President,
National Association of Audubon Societies,
New York City.

Dear Sir:—We have examined report submitted by John H. Koch & Company, certified public accountants, of the National Association of Audubon Societies, for the year ending October 19, 1922. The accounts show balance sheets of October 19, 1922, and income and expense account for the year ending the same date. Vouchers and paid checks have been examined by them in connection with all disbursements, and also the securities in the Safe Deposit Company.

Yours very truly,

H. A. LUCAS,
ROBERT CUSHMAN MURPHY,
Auditing Committee

Bird-Lore



EDITED BY
FRANK M. CHAPMAN

PUBLISHED FOR THE AUDUBON SOCIETIES
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NEW YORK

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January-February, 1922

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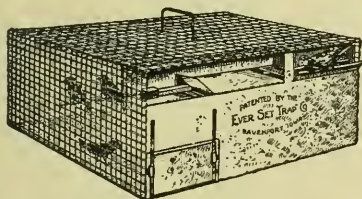
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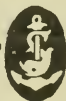
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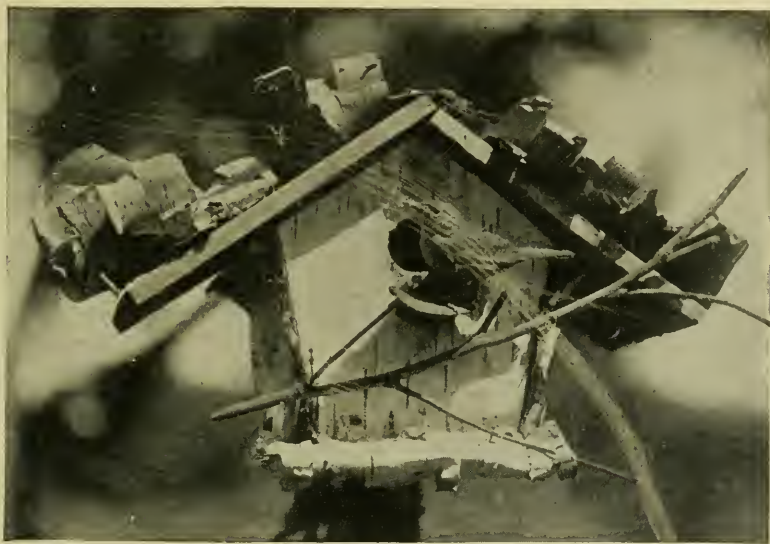
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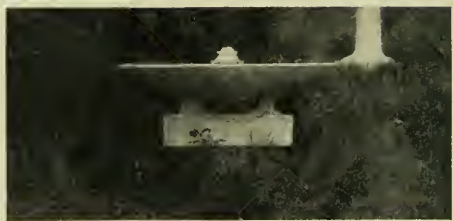
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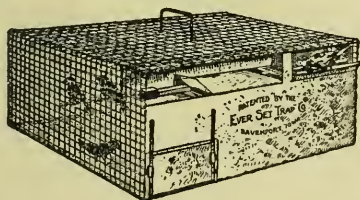
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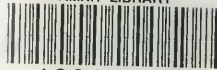
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